



Prospectus

dated 17 December 2024

for the admission to trading on the regulated market segment (*Regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (*Prime Standard*)

of

26,339,245 newly issued ordinary shares from a capital increase against cash contributions resolved by the Board of Directors on 9 December 2024

of

Vulcan Energy Resources Limited

Perth, Australia

(Registered in Australia under the Corporations Act 2001 (Cth))

Australian Company Number (ACN): 624 223 132

International Securities Identification Number (ISIN): AU0000066086

German Securities Code (*Wertpapierkennnummer, WKN*): A2PV3A

Trading Symbol: VUL

Warning regarding the validity of the Prospectus

The validity of this Prospectus will expire at the end of 19 December 2024. The obligation to supplement the Prospectus in the event of significant new factors, material mistakes or material inaccuracies does not apply when the Prospectus is no longer valid.

This document does not constitute a prospectus or disclosure document for the purposes of the Corporations Act 2001 (Cth) of Australia.

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I. SUMMARY

1. SUMMARY OF THIS PROSPECTUS

1.1 Introduction and warnings

Name and international securities identification number (ISIN) of the securities - This prospectus (the "**Prospectus**") relates to the admission to trading on the regulated market (*Regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) ("**FSE**") with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) (the "**Admission to Trading**") of 26,339,245 newly issued ordinary shares of Vulcan Energy Resources Limited ("**New Shares**", together with the existing ordinary shares of the Company, the "**Shares**") with the International Securities Identification Number ("**ISIN**") AU0000066086.

Identity and contact details of the issuer, including its legal entity identifier (LEI) - The issuer of the New Shares is Vulcan Energy Resources Limited, headquartered in Perth, Australia (registered office: Unit 1, 11/1 Spring Street, Perth WA 6000, Telephone: +61 8 6331 6156, website: www.v-er.eu), legal entity identifier ("**LEI**") 8945006OYFHQ9HE4XE54 (hereinafter the "**Company**" and together with its consolidated subsidiaries, "**Vulcan Group**").

Identity and contact details of the person asking for admission to trading on a regulated market, including its legal entity identifier (LEI) - The Company has applied for the Admission to Trading of the New Shares.

Identity and contact details of the competent authority approving the Prospectus and date of the approval of the Prospectus - This Prospectus has been approved by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* - "**BaFin**"), Marie-Curie-Straße 24-28, 60439 Frankfurt am Main, Germany, tel.: +49 228 4108 0, www.bafin.de, on 17 December 2024. BaFin only approves this Prospectus as meeting the standards for completeness, comprehensibility and consistency imposed by Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC, as amended ("**Prospectus Regulation**").

Warnings - This summary (the "**Summary**") should be read as an introduction to this Prospectus. Any decision to invest in the securities should be based on a consideration of the Prospectus as a whole by the investor. The investor could lose all or part of the invested capital. Where a claim relating to the information contained in the Prospectus is brought before a court, the plaintiff investor might, under national law, have to bear the costs of translating the Prospectus before the legal proceedings are initiated. Civil liability attaches only to those persons who have tabled the Summary including any translation thereof, but only where the Summary is misleading, inaccurate or inconsistent when read together with the other parts of the Prospectus, or where it does not provide, when read together with the other parts of the Prospectus, key information in order to aid investors when considering whether to invest in such securities.

1.2 Key information on the issuer

1.2.1 Who is the issuer of the securities?

Issuer Information - The issuer is Vulcan Energy Resources Limited, a public company limited by shares incorporated in Australia under the Corporations Act 2001 (Cth) of Australia ("**Australian Corporations Act**") with registered office at Unit 1, 11/1 Spring Street, Perth WA 6000, Australia, and governed by the laws of Australia. The Company is admitted to the official list of ASX Limited ("**ASX**") and the Company's existing shares are quoted on the securities exchange operated by ASX and admitted to trading on the regulated market (*Regulierter Markt*) of the FSE and to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) under the ticker code "VUL". The Company's LEI is 8945006OYFHQ9HE4XE54 and its Australian Company Number ("**ACN**") is 624 223 132.

Principal Activities - The Company is the parent company of Vulcan Group. Vulcan Group is an Australian headquartered lithium battery chemicals and renewable energy group with a clear goal to become the world's first integrated lithium chemicals and geothermal renewable energy producer. In addition, the Company endeavours to become Europe's first fully domestic sustainable lithium chemicals producer, and seeks to differentiate itself from its peers through proven sustainability credentials of its business, as evidenced by (a) the lowest greenhouse gas footprint per tonne LHM (as defined below) to be produced for a lithium company according to Benchmark Mineral Intelligence and (b) the world's first S&P Global "Dark Green" rating for a mining and metals company (which is awarded to companies dedicated to the long-term vision of a low-carbon, resilient future). With its integrated lithium chemicals and renewable energy production project (the "**Project**" or "**Vulcan Group's Project**"), Vulcan Group intends to combine the operations of extracting lithium chloride salt from geothermal brines in the Upper Rhine Valley of Germany, of upgrading lithium through electrolysis to a high purity lithium hydroxide monohydrate ("**LHM**") (Vulcan Group's lithium business), and of producing geothermal energy (Vulcan Group's renewable energy business). Vulcan Group's combined geothermal energy and lithium resource is estimated to be the largest in Europe on a lithium carbonate equivalent ("**LCE**") basis (according to public information, as estimated and reported in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("**JORC Code**") (source: Vulcan Group's Bridging Engineering Study for Phase One of the Project, announced on 16 November 2023 ("**Bridging Study**"). The first phase of Vulcan Group's Project is designated as "Lionheart" ("**Lionheart**" or "**Phase One**"). Pursuant to the Bridging Study, Phase One includes the construction of one geothermal plant, one lithium extraction plant ("**LEP**") and a central lithium plant ("**CLP**"), currently targeting a commercial production start in 2027, and aims for a production target capacity of approximately 24,000 metric tonnes per annum ("**tpa**") LHM as well as more than 275 gigawatt hours ("**GWh**") per annum ("**GWh/a**") of renewable power and more than 560 GWh/a of renewable heat production capacity. Vulcan Group intends to develop further phases across its licence area, as the Company plans to grow production in a staged, modular fashion. Whilst Vulcan Group has a target to develop a new phase of production every few years, the

development of any further expansion beyond Phase One remains subject to availability of funding, and the exact timing is still to be defined.

Vulcan Group aims to supply the battery electric vehicle ("**BEV**") market in Europe, which is currently mostly reliant on imports of lithium chemicals given the lack of domestic supply. The Project has also been designed from its inception to help decarbonise the German electrical and local heating grids and lithium supply chain simultaneously and is expected to have the lowest planned carbon footprint on a per tonne of LHM basis in the lithium industry compared to any previously published life cycle assessment results (source: Market report prepared by Benchmark Mineral Intelligence, commissioned by the Company, dated 19 July 2024 (the "**BMI Analysis**")). An essential part of the Project involves the use of thermal water as the principal heat source to drive the lithium production, which means that lithium is expected to be produced from the brine with a carbon neutral footprint without polluting the environment with large amounts of waste material or toxic substances prior to the brines being re-injected in a closed loop, circular system. As such, Vulcan Group's renewable energy business aims at being a net contributor to the transition of Germany's power consumption away from fossil fuels and towards more sustainable sources of renewable energy by producing more (renewable) energy than using (fossil) energy.

In order to advance its lithium and geothermal development activities as well as its renewable energy business for the Project, Vulcan Group has undertaken several strategic acquisitions in Germany within the last three years, including the acquisition of: (i) two electric drill rigs in November 2021 which can drill to the target depth required for deep geothermal energy wells in the Upper Rhine Valley of Germany (and subsequently formed a drilling company, Vercana GmbH ("**Vercana**")); (ii) geothermal renewable energy plant operator Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH) in December 2021; and (iii) geothermal renewable energy plant operator geox GmbH ("**geox**") in September 2024 (acquisition yet to be completed).

Vulcan Group holds a total of 17 licences, being 16 (main) exploration licences and one production licence including having access to one exploration and production licence, respectively, covering a total area of over 1,771 km² in the Upper Rhine Valley of Germany for areas within the German states of Baden-Württemberg, Rhineland-Palatinate and Hesse and an exploration licence in the French region of the Upper Rhine Valley, covering an area of 463 km² around the city of Mulhouse, France. An exploration licence is needed for exploring freely mineable resources, and a production licence (also referred to as an exploitation licence) gives the right to extract freely mineable resources. Vulcan Group is currently at the development stage and is targeting commencement of commercial production from Phase One in 2027, capitalising on its proprietary method for the manufacture of battery-grade LHM with a carbon neutral footprint. Phase One has an expected duration of approximately 30 years from the date of commencement of commercial production.

As of the date of this Prospectus, Vulcan Group has entered into binding agreements for the sale of battery grade LHM (referred to as lithium offtake agreements) with Umicore NV ("**Umicore**"), Renault SAS ("**Renault**"), Stellantis Auto SAS ("**Stellantis**"), LG Energy Solution Ltd ("**LG Energy**") and Volkswagen AG ("**Volkswagen**") for initial five-year, six-year, or ten-year periods. Under the lithium offtake agreements with Stellantis, Renault and LG Energy, commercial delivery is scheduled to commence in 2027 and 2028 whereas the start of commercial delivery under the Umicore agreement is yet to be adjusted to align with the targeted start of commercial production. The lithium offtake agreement with Volkswagen is also yet to be amended to apply to a future phase of production beyond Phase One (with the timing yet to be defined). Together, the volumes of LHM to be delivered under these agreements correspond to the entire expected quantity of the first five years of production from Vulcan Group in Phase One, and the majority of the production in the second five years of production. It is anticipated that the volumes of LHM to be delivered under these lithium offtake agreements will be supplied from a gradual ramp up of production from the Project.

As at the date of this Prospectus, Vulcan Group is in discussions with the City of Landau and Energie Südwest AG ("**ESW**") to supply geothermal heat generated in Phase One to ESW for sale to its customers for district heating purposes. Remaining heat not used by ESW will be returned to Vulcan Group to generate electricity that will be sold to the network. Additionally, Vulcan Group has entered into a binding heat offtake agreement with MVV Energie AG ("**MVV Energie**") and phased project agreements regarding the supply of geothermal heat with Stellantis, which are intended to be part of further phases of project development beyond Phase One. Under the binding heat offtake agreement with MVV Energie, Vulcan Group intends to sell renewable heat to supply households of the city of Mannheim via heating grids, delivering hot water to buildings in the local community. The start date of this agreement with MVV Energie, as well as other conditions, are currently under discussion. Moreover, Vulcan Group intends to sell electricity produced by its geothermal plants to the grid. Under the phased project agreements with Stellantis, the parties aim to develop, build, and operate geothermal renewable energy assets to help decarbonise the energy supply for Stellantis' operations in Rüsselsheim, Germany and Mulhouse, France by providing renewable heat. However, both these agreements are intended to be part of a future phase of production beyond Phase One, and the timing is yet to be defined. Vulcan has also entered into a staged agreement with one of the world's largest chemical producers, BASF SE ("**BASF**"), to collaborate on the development of a renewable heat project to supply BASF with baseload heat. Further, the agreement incorporates the potential construction of a commercial lithium extraction plant in Ludwigshafen, BASF's global headquarters and home to the largest integrated chemical complex globally. For the other future phase, Vulcan Group is negotiating with political stakeholders and industrial or municipal heat customers.

Vulcan Group intends to fund the planned investments to implement Phase One of the Project through a combination of debt financing at the project level as well as equity financing at the project and Company level.

With respect to debt financing at the project level, Vulcan Group has received a conditional commitment letter from a number of institutions (including Export Finance Australia and commercial banks) covering a debt financing amount of EUR 879 million. This commitment follows approval received from European Investment Bank's (EIB) Board to participate in the Project up to a EUR 500 million lending envelope (including targeting up to EUR 250 million direct lending). Vulcan Group is seeking additional approvals from Export Development Canada (EDC), Bpifrance AE, the Italian export credit agency (SACE) and other commercial banks to participate in the debt financing, to reach a target total

debt package commitment of approximately EUR 1.5 to 1.6 billion (together, the "**Envisaged Debt Financing**" in the first half of 2025. The Envisaged Debt Financing is, however, subject to finalisation, including alignment of key outstanding matters, credit committee and/or board approval, definitive agreements, and satisfaction of conditions precedent.

With respect to equity financing, Vulcan Group targets gross proceeds of approximately EUR 625 – 725 million at the project and Company level (the "**Envisaged Equity Financing**") which shall also include the proceeds arising under this Equity Raising (as defined below) and certain public grants. Vulcan Group has received a range of non-binding offers from potential strategic partners at both the Company and project level for the Envisaged Equity Financing (together with the proceeds arising under this Equity Raising (as defined below) and certain public grants), which it continues to assess, and Vulcan Group is currently targeting to finalise agreements for the Envisaged Equity Financing during the first half of 2025.

Vulcan Group believes that the following competitive strengths will allow it to execute its business strategy and will set it apart from its competitors in the future:

- Clear goal and strategy built around implementing the world's first carbon neutral footprint (based on the project life cycle assessment method) integrated lithium hydroxide production project;
- Well-positioned to capitalise on the expected dynamic transition to electric mobility and renewable energy in Europe, through the ability to offer a sustainable lithium product from Phase One of the Project;
- A business model with dual revenue sources through its lithium and renewable energy business that also provides potential for a degree of moderation from lithium and energy price fluctuations;
- Strategically located and scalable lithium raw materials resource, estimated by the Company to be the largest lithium resource in Europe as at the date of this Prospectus;
- Potential to be a low operating cost lithium business, according to Vulcan Group's Bridging Study;
- Experienced and committed international management and execution team;
- Dedicated "Vulcan Values" shape the Company's culture and inform the Company's strategy; and
- Distinct international profile and track record of strong strategic and institutional investor support.

In order to achieve becoming the world's first lithium chemicals and renewable energy producer with a carbon neutral footprint, Vulcan Group has adopted a strategy designed to capitalise on its competitive strengths. The key elements of Vulcan Group's strategy are as follows:

- Ensure local support from stakeholders for the Project;
- Build-out in a modular fashion to accelerate growth and minimise disruption by capitalising on the teams' experience during project execution;
- Leverage Vulcan Group's in-house technological capabilities;
- Develop next generation lithium compounds and advance circular economy approaches to lithium, in line with Vulcan Group's core sustainability values; and
- Become a long-term renewable energy partner to the German and European economy.

Major Shareholders – As of the date of this Prospectus, the following individuals/entities (in aggregate with their associates) have a direct or indirect interest in 3% or more of the Shares:

- Dr Francis Wedin (15,646,061 Shares, being approximately 8.31%) and Dr Francis Wedin and Katy Wedin (812,500 Shares, being approximately 0.43%)⁽¹⁾
- Stellantis (11,448,959 Shares, being approximately 6.08%)⁽²⁾
- Hochtief AG ("**Hochtief**") (11,839,612, being approximately 6.29%)⁽³⁾
- Ms. Joanne Ellen Rezos (8,635,000 Shares, being approximately 4.59%)⁽⁴⁾
- Hancock Prospecting Pty Ltd ("**HPPL**") and subsidiaries of HPPL (14,123,048 Shares, being approximately 7.50%)⁽⁵⁾

Prior to the completion of the Institutional Offer (as defined below), with issuance of the New Shares expected to occur on 18 December 2024.

- ⁽¹⁾ The Shares in which Dr Francis Wedin and Katy Wedin hold an (indirect) interest comprise 812,500 Shares held by Magni Associates Pty Ltd. Katy and Francis Wedin are the directors of Magni Associates Pty Ltd and it is 100% owned by Wedin Pty Ltd as trustee for the Wedin Family Trust.
- ⁽²⁾ The Shares in which Stellantis holds an (indirect) interest are held through PSA Automobiles S.A.
- ⁽³⁾ The Shares in which Hochtief holds an (indirect) interest are held through CGI3 Pty Limited.
- ⁽⁴⁾ The Shares in which Ms. Joanne Ellen Rezos holds an (indirect) interest are held through Vivien Enterprises Pte Ltd. Ms. Joanne Ellen Rezos is the spouse of Mr Gavin Rezos (non-executive deputy chair of the Company) and Vivien Enterprises Pte Ltd is an associate of Mr Gavin Rezos.
- ⁽⁵⁾ Each of Georgina Hope Rinehart and Bianca Hope Rinehart (in her capacity as trustee of the Hope Margaret Hancock Trust) has greater than 20% of the voting power in HPPL.

Board of Directors – As of the date of this Prospectus the members of the Company's board of directors (the "**Board of Directors**" and its members the "**Directors**") are Dr Francis Wedin (Executive Chair), Mr Gavin Rezos (Non-Executive Deputy Chair, to retire as of 31 December 2024), Mr. Cris Moreno (Managing Director/CEO), Mr Angus Barker (Non-Executive Director, as from 1 January 2025 Deputy Chair and Lead Independent Non-Executive Director), Dr Heidi Grön (Non-Executive Director), Ms Josephine Bush (Non-Executive Director), Ms Ranya Alkadamani (Non-Executive Director, to retire as of 31 December 2024) and Dr Günter Hilken (Non-Executive Director). Furthermore, Ms Felicity Gooding will be appointed as an Executive Director (in addition to her role as Group CFO) as of 1 January 2025.

Statutory Auditors – The Company's statutory auditor is RSM Australia Partners, Level 32, 2 The Esplanade, Perth WA 6000, Australia ("**RSM**").

1.2.2 What is the key financial information regarding the issuer?

The following financial information is taken or derived from (i) the audited consolidated annual financial statements of the Company prepared in accordance with Australian Accounting Standards and Interpretations ("**AASI**") issued by the Australian Accounting Standards Board ("**AASB**") and the Australian Corporations Act (A) as of and for the financial year ended 31 December 2023 ("**FY23**") (the "**Consolidated Annual Financial Statements 2023**"), (B) as of and for the short (six month) financial year ended 31 December 2022 ("**SFY22**") (the "**Consolidated Short Financial Year Financial Statements 2022**"), (C) as of and for the financial year ended 30 June 2022 ("**FY22**") (the "**Consolidated Annual Financial Statements 2022**") and (D) as of and for the financial year ended 30 June 2021 ("**FY21**") (the "**Consolidated Annual Financial Statements 2021**" and, together with the Consolidated Annual Financial Statements 2023, the Consolidated Short Financial Year Financial Statements 2022 and the Consolidated Annual Financial Statements 2022 the "**Consolidated Annual Financial Statements**") and (ii) the unaudited interim consolidated financial statements of the Company prepared in accordance with AASI issued by the AASB and the Australian Corporations Act for the six-month period ended 30 June 2024 ("**H1/FY24**") (the "**Unaudited Consolidated Interim Financial Statements 2024**" and, together with the Consolidated Annual Financial Statements, the "**Consolidated Financial Statements**").

The Consolidated Financial Statements comply with International Financial Reporting Standards ("**IASB IFRS**") as developed and published by the International Accounting Standards Board ("**IASB**"). According to Art. 1 a) of the Commission Decision of 12 December 2008 (2008/961/EC), IASB IFRS are to be regarded as equivalent to the IFRS adopted under Regulation (EC) No 1606/2002, provided that the notes to the audited financial statements contain an explicit and unreserved statement that these financial statements comply with "International Financial Reporting Standards in accordance with IAS 1 Presentation of Financial Statements". The Consolidated Annual Financial Statements were audited by RSM, who in each case issued an unqualified independent audit report thereon. In 2022, the Company changed its financial year end from 30 June to 31 December. As a consequence, SFY22 consists of the six-month period from 1 July 2022 to 31 December 2022 and therefore is not fully comparable with the prior and future financial years of the Company, which cover 12-month periods.

Through the end of FY21, Vulcan Group's presentational currency was the Australian dollar. With effect from FY22, Vulcan Group's presentational currency is euro. Therefore, the financial information for FY22, SFY22, FY23, and for H1/FY24 (as compared to the six-month period ended 30 June 2023 ("**H1/FY23**") is presented in euro, and is therefore not directly comparable with the financial information for FY21, which is presented in Australian dollars.

Table 1: Selected financial information from the consolidated statements of profit or loss

	H1/FY24 EUR (unaudited)	H1/FY23 EUR (unaudited)	FY23 EUR (audited)	SFY22 EUR (audited)	FY22 EUR (audited)	FY21 A\$ (audited)
Revenue from continuing operations	3,753,000	3,104,000	6,783,000	3,622,000	3,799,000	-
Other income	297,000	461,000	1,191,000	213,000	317,000	510,864
Finance income	1,005,000	1,560,000	3,558,000	615,000	350,000	120,678
Loss before income tax benefit/expense	(19,148,000)	(15,995,000)	(28,804,000)	(13,553,000)	(18,486,000)	(10,744,614)
Total comprehensive loss for the period attributable to the owners of Vulcan Energy Resources Limited	(20,314,000)	(18,978,000)	(31,227,000)	(15,098,000)	(11,861,000)	(10,844,607)

Table 2: Selected financial information from the consolidated statements of financial position

	30 Jun 2024 EUR (unaudited)	31 Dec 2023 EUR (audited)	31 Dec 2022 EUR (audited)	30 June 2022 EUR (audited)	30 June 2021 A\$ (audited)
Total assets	310,576,000	296,883,000	250,135,000	261,140,000	131,744,081
Total liabilities	22,234,000	28,602,000	16,974,000	13,817,000	2,759,534

Total equity	288,342,000	268,281,000	233,161,000	247,323,000	128,984,547

Table 3: Selected financial information from the consolidated statements of cash flow

	H1/FY24 EUR (unaudited)	FY23 EUR (audited)	SFY22 EUR (audited)	FY22 EUR (audited)	FY21 A\$ (audited)
Net cash provided by (used in) operating activities	(12,513,000)	(24,331,000)	(7,418,000)	(11,347,000)	(2,841,145)
Net cash provided by (used in) investing activities	(43,607,000)	(92,460,000)	(31,768,000)	(64,358,000)	(7,145,227)
Net cash provided by (used in) financing activities	37,824,000	62,755,000	(462,000)	172,054,000	118,267,924

Table 4: Alternative Performance Measures

The following financial measures are alternative performance measures defined in the guidelines issued by the European Securities and Markets Authority on 5 October 2015 on Alternative Performance Measures and should not be viewed as an alternative to the equivalent IASB IFRS or IFRS financial measures.

	H1/FY24 EUR (unaudited)	HY1/FY23 (unaudited)	FY23 EUR (unaudited)	SFY22 EUR (unaudited)	FY22 EUR (unaudited)	FY21 A\$ (unaudited)
Capital expenditure ⁽¹⁾	30,290,000	42,434,000	90,820,000	30,704,000	67,880,000	7,239,989

⁽¹⁾ Capital expenditure includes investment in tangible and intangible assets.

1.2.3 What are the key risks that are specific to the issuer?

- Battery raw materials and geothermal energy exploration and development are high-risk undertakings and there is no assurance that Vulcan Group's exploration activities will result in the commercial extraction of lithium or sustainable production of lithium or geothermal renewable energy.
- General demand for lithium may decrease as a result of new market or technological developments and other factors. Any such factors resulting in a decrease in the general demand for, or an increase in the general supply for, lithium may have a detrimental effect on Vulcan Group's business.
- Lithium prices are subject to unpredictable fluctuations, driven in part by changes in the balance of global supply and demand as well as international, economic and geopolitical trends and developments. Any material decrease or significant volatility in the price of or demand for lithium could have a detrimental effect on Vulcan Group's business and share price.
- Vulcan Group's estimated exploration, development and operating costs are based on certain assumptions and no assurance can be given that Vulcan Group's cost estimates and the underlying assumptions to extract lithium chemicals from brine and renewable geothermal energy on commercially viable terms will be realised in practice.
- Vulcan Group is still in the development stage and has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its Project, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses.
- The resource estimates relating to Vulcan Group's current and future projects are subject to certain assumptions and interpretations which may prove to be inaccurate. Any material deviations may result in alterations to development plans which may, in turn, adversely affect Vulcan Group's operations.
- There is no guarantee that Vulcan Group will be able to obtain all required approvals, licences and permits and land for lithium and geothermal renewable energy production in time or at all.
- Vulcan Group's projects may face opposition from relevant stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty.
- Significant funding will be required by Vulcan Group to support the further implementation of the Project. If Vulcan Group is unable to enter into the envisaged financing agreements or to comply with the terms of the existing financing arrangements or those financing agreements it intends to enter into with various lenders at the project level or to obtain additional financing as needed on acceptable terms or at all, it may need to abandon its development plans or reduce and/or change their scope which may, in turn, adversely affect Vulcan Group's operations.
- Vulcan Group has entered into a credit facility and plans to enter into significant debt financing arrangements in the short-term pursuant to which it will have to bear significant debt financing costs which may further increase in case of an increase in the interest rates. As it is envisaged to incur significant additional debt in the future, the Company expects that its debt financing costs will further increase in the future.

- Vulcan Group's geothermal projects are subject to induced seismicity risks.
- Vulcan Group may lose its directors or other key personnel or may be unable to recruit or retain qualified personnel for key positions. Without such directors or key personnel Vulcan Group may not be able to successfully manage, develop and operate its business.
- Vulcan Group's risk management or compliance systems may not have been, or may not be, sufficient to adequately prevent or detect legal, tax and operational risks.

1.3 Key information on the securities

1.3.1 What are the main features of the securities?

Issuance of New Shares - The Company, together with two international investment banks (together the "**Underwriters**"), have offered and placed the total number of 26,339,245 New Shares via a fully underwritten institutional placement in the amount of 20,737,004 New Shares (the "**Underwritten Portion of New Shares**"), and a concurrent placement to strategic investors on a firm commitment basis in the amount of 5,602,241 New Shares (the "**Direct Investor Portion of New Shares**"). The New Shares are expected to be issued on 18 December 2024.

Number and Nature of Shares - As of the date of this Prospectus, 188,188,571 existing Shares are outstanding. Assuming issuance of the New Shares in full, 214,527,816 Shares will be outstanding following the implementation of the Capital Increase relating to the New Shares. All of the Shares are fully paid ordinary shares.

ISIN and Denomination - The ISIN of the Shares is AU0000066086 and the Shares are denominated in Australian dollars (A\$).

Rights Attached to the Shares and Transferability - All Shares are governed by the Company's constitution, the Australian Corporations Act, the ASX Listing Rules and Australian general law. All Shares carry full dividend rights. Each Share carries one vote at the Company's shareholders' meeting. The Shares are freely transferable, subject to formal requirements, applicable securities laws in overseas jurisdictions, the registration of the transfer not resulting in a contravention of or failure to observe the provisions of a law of Australia and the transfer not being in breach of either the Australian Corporations Act or the ASX Listing Rules. In the case of insolvency, a person's liability as a shareholder is limited to any amount unpaid on their Shares.

Dividend Policy - The Company does not intend to pay dividends for the foreseeable future. Any future determination as to the payment of dividends by the Company will be at the discretion of the Board of Directors and will depend on the financial condition of the Company, future capital requirements and general business and other factors considered relevant by the Board of Directors.

1.3.2 Where will the securities be traded?

The existing shares of the Company are dual listed and can be traded (i) on the official list of ASX as well as (ii) on the regulated market (Prime Standard) of the FSE under the ticker code "VUL". The New Shares are expected to be simultaneously admitted to trading on the ASX and the FSE under the same ticker code "VUL".

1.3.3 What are the key risks that are specific to the securities?

- Future capital increases, such as the envisaged offering of the Additional New Shares, could lead to a substantial dilution of shareholders' interests in the Company and their voting rights and may adversely affect the market price of the Shares.
- The market price and trading volume of the Shares could fluctuate considerably, including as between the ASX and the FSE, which may result in substantial losses for investors. Differences in market price, trading volume, settlement and clearing systems, trading currencies and transaction costs between the ASX and the FSE may hinder the transferability of the Shares between the ASX and the FSE.

1.4 Key information on the offer of securities and the admission to trading on a regulated market

1.4.1 Under which conditions and timetable can I invest in this security?

Equity Raising - The New Shares originate from a capital increase against contribution in cash resolved by the Board of Directors on 9 December 2024 as part of a broader equity raising consisting (i) of 26,339,245 New Shares and the Additional Placement Shares (as defined below) which were jointly placed to institutional investors generating gross proceeds of approximately EUR 100 million (A\$ 164 million) by way of a placement using the Company's existing placement capacity in accordance with the ASX Listing Rules (the "**Institutional Offer**") and (ii) up to approximately 3,418,803 new ordinary shares by means of a non-underwritten share purchase plan (SPP) offered to eligible existing shareholders targeting to raise up to EUR 12.2 million (A\$20 million) (together, the "**Capital Increase**" or the "**Equity Raising**"). As part of the Institutional Offer, the Company has, together with the New Shares, also placed an amount of 1,680,672 new ordinary shares to a strategic investor on a firm commitment basis (the "**Additional Placement Shares**" and, together with the New Shares, the "**Placement Shares**"). The total amount of 28,019,917 Placement Shares were offered and placed, each at a price of EUR 3.57 (A\$ 5.85) per Share (the "**Offer Price**").

The Company has also resolved on 9 December 2024 in connection with the Capital Increase to issue up to approximately 3,418,803 new ordinary shares from a capital increase against contribution in cash by means of a non-underwritten share purchase plan (SPP) offered to eligible existing shareholders targeting to raise up to EUR 12.2 million (A\$ 20 million) ("**Additional SPP Shares**" and, together with the Additional Placement Shares, the "**Additional New Shares**").

"). The issuance of the Additional New Shares is expected for January 2025 and are not the subject to the Admission to Trading under this Prospectus.

Admission to Trading – The New Shares are expected to be admitted to trading on the regulated market (*Regulierter Markt*) of the FSE with simultaneous admission to the sub-segment of the regulated market (*Regulierter Markt*) with additional post-admission obligations (Prime Standard) on or about 19 December 2024. The New Shares are expected to be simultaneously admitted to trading on the ASX.

Underwriting – On 10 December 2024, the Underwriters and the Company entered into an underwriting agreement in relation to the Underwritten Portion of New Shares ("**Underwriting Agreement**"). The Underwriting Agreement provides for a firm underwriting for the Underwritten Portion of New Shares, subject to the terms of the Underwriting Agreement.

Dilution –Based on 188,188,571 Shares outstanding immediately prior to the Institutional Offer and assuming that none of the existing shareholders subscribes for any Placement Shares in the Institutional Offer, each shareholder's percentage ownership in the Company's share capital and voting rights would decrease by 12.96% per existing Share.

The net book value of the shareholders' equity of the Company as of 30 June 2024 is calculated as the difference of "Total assets" less "Non-current liabilities" and "Current liabilities" each as presented as line items in the Unaudited Consolidated Interim Financial Statements 2024 as of 30 June 2024 and was EUR 288,342 thousand and therefore EUR 1.53 per Share, calculated on the basis of 188,188,571 issued Shares as of 30 June 2024.

Based on the foregoing, and following the deduction of the commissions, fees and other expenses related to the Institutional Offer and the Admission to Trading in the amount of approximately EUR 3,500 thousand, the net book value of the shareholders' equity of the Company would have been EUR 384,842 thousand or EUR 1.78 per Share as of 30 June 2024 (calculated on the basis of the number of 216,208,488 Shares issued after the implementation of the Capital Increase relating to the Placement Shares).

This corresponds to an accretion in the net book value of the shareholders' equity of the Company by EUR 0.25 or 16.33% per Share for the existing shareholders, as the adjusted net book value of the shareholders' equity of the Company exceeds the prior net book value of the shareholders' equity by this amount or this percentage. For purchasers of New Shares at the Offer Price (of EUR 3.57), this entails a theoretical loss of EUR (1.79) or (50.14)% per Share against the net book value of the shareholders' equity of the Company.

1.4.2 Who is the offeror and the person asking for admission to trading?

Admission to Trading – The Company has applied for the Admission to Trading of the New Shares.

1.4.3 Why is this Prospectus being produced?

Reasons for the Admission to Trading, Costs and Use of Proceeds - The Company intends to pursue the Admission to Trading in connection with the issuance of the New Shares in order to raise additional funds pursuant to the Institutional Offer (as part of the Equity Raising) for the purposes of funding Phase One of Vulcan Group's Project and for the further growth of the Company.

The Company targets gross proceeds of approximately EUR 100 million (A\$164 million) from the Institutional Offer resulting from the issue of the Placement Shares. The costs of the Company related to the Admission to Trading and the Institutional Offer are expected to amount to approximately EUR 3.5 million. The Company intends to use the net proceeds from the Institutional Offer as follows: (i) Commence execution of the field development plan and first production well, (ii) Commence construction of the ORC plant, cooling tower, 110kV substation, pipeline, and execute limited notice to proceed contracts for the LEP and CLP, (iii) Land acquisition and LEP / CLP site establishment, completion of the integrated pipeline loop at Insheim, commitments for key capital expenditure items, and engineering costs associated with Phase One execution, (iv) Operating cost to support on-the-ground Phase One, (v) the remaining amount for operating expenditure to support on-the-ground execution of the Project and corporate purposes.

Material Conflicts of Interest – There are no conflicting interests with respect to the Admission to Trading.

2. GERMAN TRANSLATION OF THE SUMMARY / ZUSAMMENFASSUNG DIESES PROSPEKTS

2.1 Einleitung und Warnhinweise

Bezeichnung und internationale Wertpapier-Identifikationsnummer (ISIN) der Wertpapiere – Dieser Prospekt (der "**Prospekt**") bezieht sich auf die Zulassung zum Handel im regulierten Markt an der Frankfurter Wertpapierbörse ("**FWB**") und gleichzeitig zum Teilbereich des regulierten Marktes mit weiteren Zulassungsfolgepflichten (Prime Standard) (die "**Zulassung zum Handel**") von 26.339.245 neu ausgegebenen Stammaktien von Vulcan Energy Resources Limited ("**Neue Aktien**"), zusammen mit den bestehenden Stammaktien der Gesellschaft, die Aktien ("**Aktien**") mit der internationalen Wertpapierkennnummer ("**ISIN**") AU0000066086.

Identität und Kontaktdaten des Emittenten, einschließlich der Rechtsträgerkennung (LEI) – Die Emittentin der Neuen Aktien ist die Vulcan Energy Resources Limited mit Hauptsitz in Perth, Australien (eingetragener Sitz: Unit 1, 11/1 Spring Street, Perth WA 6000, Telefon: +61 8 6331 6156, Website: www.v-er.eu), Rechtsträgerkennung (*legal entity identifier*) ("**LEI**") 8945006OYFHQ9HE4XE54 (im Folgenden die "**Gesellschaft**" und zusammen mit ihren konsolidierten Tochtergesellschaften der "**Vulcan-Konzern**").

Identität und Kontaktdaten der die Zulassung zum Handel an einem regulierten Markt beantragenden Person, einschließlich der Rechtsträgerkennung (LEI) – Die Gesellschaft hat die Zulassung zum Handel der Neuen Aktien beantragt.

Identität und Kontaktdaten der zuständigen Behörde, die den Prospekt billigt, und Datum der Billigung des Prospekts – Dieser Prospekt wurde von der Bundesanstalt für Finanzdienstleistungsaufsicht ("**BaFin**"), Marie-Curie-Straße 24-28, 60439 Frankfurt am Main, Deutschland, Tel: +49 228 4108 0, www.bafin.de, am 17. Dezember 2024 gebilligt. Die BaFin billigt diesen Prospekt lediglich dahingehend, dass er den Anforderungen an die Vollständigkeit, Verständlichkeit und Kohärenz gemäß der Verordnung (EU) 2017/1129 des Europäischen Parlaments und des Rates vom 14. Juni 2017 betreffend den Prospekt, der beim öffentlichen Angebot von Wertpapieren oder bei deren Zulassung zum Handel an einem geregelten Markt zu veröffentlichen ist, und zur Aufhebung der Richtlinie 2003/71/EG in der jeweils geltenden Fassung ("**Prospektverordnung**") entspricht.

Warnhinweise – Diese Zusammenfassung (die "**Zusammenfassung**") sollte als Einführung in diesen Prospekt gelesen werden. Jede Entscheidung, in die Wertpapiere zu investieren, sollte auf der Grundlage einer Prüfung des gesamten Prospekts durch den Anleger erfolgen. Der Anleger könnte sein investiertes Kapital ganz oder teilweise verlieren. Wird ein Gericht mit einer Klage im Zusammenhang mit den im Prospekt enthaltenen Informationen befasst, könnte der klagende Anleger nach nationalem Recht die Kosten für die Übersetzung des Prospekts vor Einleitung des Gerichtsverfahrens tragen müssen. Zivilrechtlich haftet nur derjenige, der die Zusammenfassung einschließlich einer etwaigen Übersetzung davon vorgelegt hat, allerdings nur dann, wenn die Zusammenfassung, wenn sie zusammen mit den anderen Teilen des Prospekts gelesen wird, irreführend, unrichtig oder widersprüchlich ist oder keine Schlüsselinformationen enthält, die den Anlegern bei der Entscheidung über eine Anlage in diese Wertpapiere helfen sollen.

2.2 Basisinformationen über den Emittenten

2.2.1 Wer ist die Emittentin der Wertpapiere?

Angaben zur Emittentin – Die Emittentin ist die Vulcan Energy Resources Limited, eine Aktiengesellschaft, die in Australien nach dem australischen Unternehmensgesetz 2001 (Cth) ("**Australian Corporations Act**") gegründet wurde und ihren eingetragenen Sitz in Unit 1, 11/1 Spring Street, Perth WA 6000, Australien, hat und australischem Recht unterliegt. Die Gesellschaft wurde in die offizielle Liste der ASX Limited ("**ASX**") aufgenommen. Die bestehenden Aktien der Gesellschaft sind unter dem Tickerkürzel "VUL" an der von der ASX betriebenen Wertpapierbörse notiert und zum Handel im regulierten Markt an der FWB und im Teilbereich des regulierten Marktes mit weiteren Zulassungsfolgepflichten (Prime Standard) zugelassen. Der LEI der Gesellschaft lautet 8945006OYFHQ9HE4XE54 und ihre australische Unternehmensnummer ("**ACN**") lautet 624 223 132.

Haupttätigkeiten – Die Gesellschaft ist die Muttergesellschaft des Vulcan-Konzerns. Der Vulcan-Konzern ist ein australischer Konzern für Lithium Batterie-Chemikalien und geothermischen erneuerbaren Energien, der sich zum Ziel gesetzt hat, der weltweit erste integrierte Produzent von Lithium-Chemikalien und erneuerbaren Energien zu werden. Darüber hinaus strebt das Unternehmen an, der erste vollständig inländische Hersteller nachhaltiger Lithiumchemikalien zu werden, und versucht, sich durch nachgewiesene Nachhaltigkeitsreferenzen seines Unternehmens von seinen Mitbewerbern abzuheben, was durch (a) den niedrigsten Treibhausgas-Fußabdruck pro Tonne LHM (wie unten definiert) für ein Lithiumunternehmen laut Benchmark Mineral Intelligence und (b) das weltweit erste „Dark Green“-Rating von S&P Global für ein Bergbau- und Metallunternehmen (das an Unternehmen vergeben wird, die sich der langfristigen Vision einer kohlenstoffarmen, resilienten Zukunft verschrieben haben) belegt wird. Mit seinem integrierten Projekt zur Herstellung von Lithiumchemikalien und erneuerbaren Energien (das "**Projekt**" oder ("**Projekt des Vulcan-Konzern**") beabsichtigt der Vulcan-Konzern, die Gewinnung von lithiumreicher geothermischer Sole im Oberrheintal in Deutschland, die Verarbeitung von Lithium durch Elektrolyse zu hochreinem Lithiumhydroxid-Monohydrat ("**LHM**") (das Lithiumgeschäft des Vulcan-Konzerns) und die Produktion von geothermischer Energie (das Geschäft des Vulcan-Konzerns mit erneuerbaren Energien) zu kombinieren. Die kombinierten Geothermie- und Lithiumressourcen des Vulcan-Konzerns werden auf der Grundlage des Lithiumcarbonatäquivalents ("**LCE**") als die größten in Europa eingeschätzt (nach öffentlichen Informationen, die gemäß der Ausgabe 2012 des Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("**JORC Code**") geschätzt und gemeldet wurden (Quelle: Bridging Engineering Study des Vulcan-Konzerns für Phase Eins des Projekts, veröffentlicht am 16. November 2023 ("**Bridging Study**))). Die erste Phase des Projekts des Vulcan-Konzerns wird als Lionheart ("**Lionheart**" oder "**Phase**

Eins") bezeichnet. Gemäß der Bridging Study umfasst Phase Eins den Bau einer geothermischen Anlage, einer Lithiumextraktionsanlage ("**LEP**") und einer zentralen Lithiumanlage ("**CLP**"), deren kommerzieller Produktionsstart im Jahr 2027 angestrebt wird, eine Produktionszielkapazität von etwa 24.000 Tonnen pro Jahr ("**tpa**") sowie mehr als 275 Gigawattstunden ("**GWh**") pro Jahr ("**GWh/a**") an erneuerbarer Energie- und mehr als 560 GWh/a erneuerbare Wärmeerzeugungskapazität anstrebt. Der Vulcan-Konzern beabsichtigt, weitere Phasen in seinen Lizenzgebieten zu entwickeln, da die Gesellschaft plant, die Produktion in einer gestaffelten, modularen Weise zu steigern. Während der Vulcan-Konzern das Ziel hat, alle paar Jahre eine neue Produktionsphase zu entwickeln, bleibt die Entwicklung jeder weiteren Expansion über Phase Eins hinaus von der Verfügbarkeit von Finanzmitteln abhängig, und der genaue Zeitpunkt ist noch zu definieren.

Der Vulcan-Konzern zielt darauf ab, den Markt für batteriebetriebene Elektrofahrzeuge ("**BEV**") in Europa zu beliefern, der derzeit aufgrund des Mangels an inländischer Versorgung auf Importen von Lithiumchemikalien angewiesen ist. Das Projekt wurde von Anfang an so konzipiert, dass es gleichzeitig zur Dekarbonisierung der deutschen Strom- und lokalen Heiznetze sowie der Lithium-Lieferkette beiträgt und voraussichtlich den niedrigsten geplanten CO₂-Fußabdruck pro Tonne LHM in der Lithiumindustrie im Vergleich zu allen bisher veröffentlichten Lebenszyklusbewertungsergebnissen aufweisen wird (Quelle: Marktbericht erstellt von Benchmark Mineral Intelligence, im Auftrag der Gesellschaft, vom 19. Juli 2024 (die "**BMI Analyse**"). Ein wesentlicher Bestandteil des Projekts ist die Nutzung von Thermalwasser als Hauptwärmequelle der Lithiumproduktion, was bedeutet, dass Lithium aus der Sole mit einem CO₂-neutralen Fußabdruck produziert werden soll, ohne die Umwelt mit großen Mengen an Abfallmaterial oder giftigen Substanzen zu belasten, bevor die Sole in einem geschlossenen Kreislaufsystem wieder injiziert wird. Somit zielt das Geschäft des Vulcan-Konzerns mit erneuerbaren Energien darauf ab, einen Netto-Beitrag zur Umstellung des deutschen Energieverbrauchs weg von fossilen Brennstoffen hin zu nachhaltigeren erneuerbaren Energiequellen zu leisten, indem es mehr (erneuerbare) Energie erzeugt als (fossile) Energie verbraucht wird.

Um seine Lithium- und Geothermie-Explorationsaktivitäten sowie sein Geschäft mit erneuerbaren Energien für das Projekt voranzutreiben, hat der Vulcan-Konzern in den letzten drei Jahren mehrere strategische Akquisitionen in Deutschland getätigt, darunter: (i) den Erwerb von zwei elektrischen Bohranlagen im November 2021, die bis zur erforderlichen Zieltiefe für unterirdische Geothermiebohrungen im Oberrheingraben in Deutschland bohren können (und anschließend die Gründung eines Bohrunternehmens, Vercana GmbH ("**Vercana**")); (ii) den Erwerb des Betreibers von geothermischen Erneuerbare-Energie-Anlagen die Pfalzwerke geofuture GmbH (im Dezember 2021 in Natürlich Inshiem GmbH umfirmiert) im Dezember 2021; und (iii) den Erwerb des Betreibers von geothermischen Erneuerbare-Energie-Anlagen die geox GmbH ("**geox**") im September 2024 (Erwerb ist noch nicht abgeschlossen).

Der Vulcan-Konzern hält insgesamt 17 Erlaubnisse, davon 16 (Haupt-)Aufsuchungserlaubnisse und eine Gewinnungserlaubnis, einschließlich des Zugangs zu einer Explorations- bzw. Produktionserlaubnis, die eine Gesamtfläche von über 1.771 km² im Oberrheintal in Deutschland für Gebiete in den Bundesländern Baden-Württemberg, Rheinland-Pfalz und Hessen sowie eine Aufsuchungserlaubnis in der französischen Region des Oberrheintals, die eine Fläche von 463 km² um die Stadt Mühlhausen, Frankreich, umfasst. Eine Aufsuchungserlaubnis berechtigt zur Aufsuchung bergfreier Bodenschätze und eine Gewinnungserlaubnis (oder Produktionserlaubnis) gewährt das Recht zur Gewinnung bergfreier Bodenschätze. Der Vulcan-Konzern befindet sich derzeit in der Entwicklungsphase und strebt die Aufnahme der kommerziellen Produktion aus Phase Eins im Jahr 2027 an unter Ausnutzung seiner geschützten Methode zur Herstellung von LHM in Batteriequalität mit einem CO₂-neutralen Fußabdruck an. Phase Eins hat eine voraussichtliche Dauer von etwa 30 Jahren ab dem Beginn der kommerziellen Produktion.

Zum Zeitpunkt dieses Prospekts hat der Vulcan-Konzern mit Umicore N.V. ("**Umicore N.V.**"), der Renault SAS ("**Renault**"), Stellantis Auto SAS ("**Stellantis**"), LG Energy Solutions Ltd ("**LG Energy**") und der Volkswagen AG ("**Volkswagen**") verbindliche Verträge über den Verkauf von LHM in Batteriequalität (sog. Lithiumabnahmeverträge) für einen Zeitraum von zunächst jeweils fünf, sechs oder zehn Jahren abgeschlossen. Gemäß den Lithium-Abnahmevereinbarungen mit Stellantis, Renault und LG Energy soll die kommerzielle Lieferung 2027 bzw. 2028 beginnen, während der Beginn der kommerziellen Lieferung im Rahmen der Umicore-Vereinbarung noch an den geplanten Beginn der kommerziellen Produktion angepasst werden muss. Der Lithium-Abnahmevertrag mit Volkswagen muss ebenfalls noch geändert werden, damit er für eine zukünftige Produktionsphase nach Phase Eins gilt (der Zeitpunkt steht noch nicht fest). Die im Rahmen dieser Lithiumabnahmeverträge zu liefernden Mengen an LHM entsprechen der geschätzten Gesamtmenge für die ersten fünf Produktionsjahre aus dem Projekt des Vulcan-Konzerns in Phase Eins und dem Großteil der Produktion in den folgenden fünf Produktionsjahren. Es wird davon ausgegangen, dass die im Rahmen dieser Lithiumabnahmeverträge zu liefernden LHM-Mengen aus einer stufenweisen Ausweitung der Produktion des Projekts stammen werden.

Zum Zeitpunkt der Veröffentlichung dieses Prospekts befindet sich der Vulcan-Konzern in Gesprächen mit der Stadt Landau und der Energie Südwest AG ("**ESW**") über die Lieferung von in Phase Eins erzeugter geothermischer Wärme an ESW zum Verkauf an deren Kunden für Fernwärmezwecke. Die verbleibende Wärme, die nicht von ESW genutzt wird, wird an den Vulcan-Konzern zurückgegeben, um Strom zu erzeugen, der an die Netzinfrastruktur verkauft wird. Zusätzlich hat der Vulcan-Konzern eine verbindliche Wärmeabnahmevereinbarung mit der MVV Energie AG ("**MVV Energie**") und phasenbasierte Projektvereinbarungen bezüglich der Lieferung von geothermischer Wärme mit Stellantis abgeschlossen, die Teil weiterer Phasen der Projektentwicklung über Phase Eins hinaus sein sollen. Im Rahmen der verbindlichen Wärmeabnahmevereinbarung mit MVV Energie beabsichtigt der Vulcan-Konzern, erneuerbare Wärme zu verkaufen, um Haushalte der Stadt Mannheim über Wärmenetze zu versorgen und heißes Wasser an Gebäude in der lokalen Gemeinde zu liefern. Über den Zeitpunkt des Inkrafttretens dieser Vereinbarung mit MVV Energie sowie über weitere Bedingungen wird derzeit verhandelt. Darüber hinaus beabsichtigt der Vulcan-Konzern, den von geothermischen Anlagen erzeugten Strom an die Netzinfrastruktur zu verkaufen. Im Rahmen der phasenbasierten Projektvereinbarungen mit Stellantis zielen die Parteien darauf ab, geothermische Anlagen für erneuerbare Energien zu entwickeln, zu bauen und zu betreiben, um die Energieversorgung für die Stellantis-Betriebe in Rüsselsheim,

Deutschland, und Mühlhausen, Frankreich, durch die Bereitstellung erneuerbarer Wärme zu dekarbonisieren. Beide Vereinbarungen sollen jedoch Teil einer zukünftigen Produktionsphase über Phase Eins hinaus sein, und der Zeitpunkt ist noch festzulegen. Vulcan hat außerdem eine stufenweise Vereinbarung mit einem der weltweit größten Chemieproduzenten, der BASF SE ("**BASF**"), über die Zusammenarbeit bei der Entwicklung eines Projekts für erneuerbare Wärme zur Grundlastversorgung von BASF getroffen. Darüber hinaus umfasst die Vereinbarung den möglichen Bau einer kommerziellen Lithiumextraktionsanlage in Ludwigshafen, dem globalen Hauptsitz von BASF und Standort des größten integrierten Chemiekomplexes weltweit. Für die andere zukünftige Phase verhandelt die Vulcan Group mit politischen Interessengruppen und industriellen oder kommunalen Wärmekunden.

Der Vulcan-Konzern beabsichtigt, die geplanten Investitionen zur Umsetzung der Phase Eins des Projekts durch eine Kombination aus Fremdfinanzierung auf Projektebene sowie Eigenkapitalfinanzierung auf Projekt- und Gesellschaftsebene zu finanzieren.

In Bezug auf die Fremdkapitalfinanzierung auf Projektebene hat der Vulcan-Konzern eine bedingte Verpflichtungserklärung von einer Reihe von Institutionen (darunter Export Finance Australia und verschiedene Exportkreditagenturen und Geschäftsbanken im Rahmen einer Fremdkapitalfinanzierung in Höhe von 879 Millionen EUR erhalten. Diese Verpflichtung folgt auf die Genehmigung des Leitungsgremiums der Europäischen Investitionsbank (EIB), sich mit einem Darlehensrahmen von bis zu 500 Millionen EUR (einschließlich einer angestrebten Direktdarlehenssumme von bis zu 250 Millionen EUR) an dem Projekt zu beteiligen. Der Vulcan Konzern bemüht sich um weitere Genehmigungen von der Export Development Canada (EDC), Bpifrance AE, der italienischen Exportkreditagentur (SACE) und weiteren Geschäftsbanken, um sich an der Fremdfinanzierung zu beteiligen und so eine Fremdkapitalfinanzierungsvereinbarung von etwa 1,5 bis 1,6 Mrd. EUR (zusammen die "**Geplante Fremdkapitalfinanzierung**"), in der ersten Hälfte des Jahres 2025 zu erhalten. Die Geplante Fremdkapitalfinanzierung muss jedoch noch final abgeschlossen werden, einschließlich der Klärung wichtiger offener Fragen, der Genehmigung durch Kreditausschüsse und/oder Leitungsgremien, des Abschlusses endgültiger Vereinbarungen und der Erfüllung aufschiebender Bedingungen.

Hinsichtlich der Eigenkapitalfinanzierung strebt der Vulcan-Konzern einen Bruttoerlös von ca. 625 - 725 Millionen EUR auf Projekt- und Unternehmensebene an (die "**Geplante Eigenkapitalfinanzierung**"), die auch die Erlöse aus dieser Kapitalerhöhung (wie unten definiert) und bestimmte öffentliche Zuschüsse umfassen soll. Der Vulcan-Konzern hat eine Reihe von unverbindlichen Angeboten von potenziellen strategischen Partnern sowohl auf Gesellschafts- als auch auf Projektebene für die geplante Eigenkapitalfinanzierung (zusammen mit den Erlösen aus dieser Kapitalerhöhung (wie unten definiert) und bestimmten öffentlichen Zuschüssen) erhalten, die weiterhin geprüft werden, und der Vulcan-Konzern strebt derzeit an, die Vereinbarungen für die Geplante Eigenkapitalfinanzierung im ersten Halbjahr 2025 abzuschließen.

Der Vulcan-Konzern ist der Ansicht, dass die folgenden wettbewerblichen Stärken ihm die Umsetzung seiner Geschäftsstrategie ermöglichen und ihn in Zukunft von seinen Konkurrenten unterscheiden werden:

- Klares Ziel und klare Strategie rund um die Umsetzung des weltweit ersten integrierten Lithiumhydroxid-Produktionsprojekts mit einem CO₂-neutralen Fußabdruck (basierend auf der Methode zur Analyse des Produktlebenszyklusses);
- Gut positioniert, um vom erwarteten dynamischen Übergang zur Elektromobilität und vom Umstieg auf erneuerbare Energien in Europa zu profitieren, indem es ein nachhaltiges Lithiumprodukt aus der Phase Eins des Projekts anbieten kann;
- Geschäftsmodell mit zwei Einnahmequellen durch das Lithiumgeschäft und das Geschäft mit erneuerbaren Energien, das auch das Potenzial für eine weitgehende Kompensation von Energiepreisschwankungen bietet;
- Strategisch günstig gelegener, skalierbarer und nach Einschätzung der Gesellschaft, zum Zeitpunkt dieses Prospekts, europaweit größter Lithium-Rohstoffressource;
- Potenzial, ein Lithiumgeschäft mit niedrigen Betriebskosten zu entwickeln, gemäß der Bridging Study des Vulcan-Konzerns;
- Erfahrenes und engagiertes internationales Management- und Ausführungsteam;
- Die "Vulcan-Werte" prägen die Unternehmenskultur und bilden die Grundlage für die Strategie des Unternehmens; und
- Deutliches internationales Profil und nachgewiesene Unterstützung durch starke strategische und institutionelle Investoren.

Um das Ziel zu erreichen, der weltweit erste Hersteller von Lithiumchemikalien und erneuerbaren Energien mit einem CO₂-neutralen Fußabdruck zu werden, hat der Vulcan-Konzern eine Strategie angenommen, die darauf ausgerichtet ist, seine Wettbewerbsvorteile zu nutzen. Die Schlüsselemente der Strategie des Vulcan-Konzerns sind folgende:

- Sicherstellung der Unterstützung von örtlichen Interessengruppen für das Projekt;
- Modularer Aufbau, um das Wachstum zu beschleunigen und Störungen zu reduzieren, indem die Erfahrung der Mitarbeiter bei der Projektdurchführung genutzt wird;
- Nutzung der internen technologischen Fähigkeiten des Vulcan-Konzerns;

- Entwicklung der nächsten Generationen von Lithiumanwendungen und Vorantreiben von Kreislaufwirtschaftsstrategien betreffend Lithium in Übereinstimmung mit den zentralen Nachhaltigkeitswerten des Vulcan-Konzerns; und
- Ein langfristiger Partner der deutschen und europäischen Wirtschaft im Bereich der erneuerbaren Energien werden.

Hauptanteilseigner – Zum Datum dieses Prospekts halten die folgenden Personen/Gesellschaften (zusammen mit ihren verbundenen Unternehmen) eine direkte oder indirekte Beteiligung von 3 % oder mehr an den Aktien:

- Dr Francis Wedin (15.646.061 Aktien, d.h. etwa 8,31%) und Dr Francis Wedin und Katy Wedin (812.500 Aktien, d.h. etwa 0,43%)(¹)
- Stellantis (11.448.959 Aktien, d.h. etwa 6,08%)(²)
- Hochtief AG ("**Hochtief**") (11.839.612 Aktien, d.h. etwa 6,29%)(³)
- Ms. Joanne Ellen Rezos (8.635.000 Aktien, d. h. ca. 4,59%)(⁴)
- Hancock Prospecting Pty Ltd ("**HPPL**") und Tochtergesellschaften von HPPL (14.123.048 Aktien, d. h. ca. 7,50%)(⁵)

Vor dem Abschluss des Institutionellen Angebots (wie unten definiert), wobei die Begebung der Neuen Aktien voraussichtlich am 18. Dezember 2024 erfolgen wird.

- (1) Die Aktien, an denen Dr Francis Wedin und Katy Wedin eine indirekte Beteiligung halten, umfassen 812.500 Aktien, die von Magni Associates Pty Ltd gehalten werden. Katy und Francis Wedin sind die Direktoren von Magni Associates Pty Ltd, das sich zu 100 % im Besitz von Wedin Pty Ltd als Treuhänder des Wedin Family Trust befindet.
- (2) Die Aktien, an denen Stellantis eine (indirekte) Beteiligung hält, werden über PSA Automobiles S.A. gehalten.
- (3) Die Aktien, an denen Hochtief AG eine (indirekte) Beteiligung hält, werden über CGI3 Pty Limited gehalten.
- (4) Die Aktien, an denen Frau Joanne Ellen Rezos eine (indirekte) Beteiligung hält, werden über Vivien Enterprises Pte Ltd. gehalten. Frau Joanne Ellen Rezos ist die Ehefrau von Herrn Gavin Rezos (nicht geschäftsführender stellvertretender Vorsitzender der Gesellschaft) und Vivien Enterprises Pte Ltd ist ein verbundenes Unternehmen von Herrn Gavin Rezos.
- (5) Georgina Hope Rinehart und Bianca Hope Rinehart (in ihrer Eigenschaft als Treuhänderin des Hope Margaret Hancock Trust) halten jeweils mehr als 20 % der Stimmrechte an HPPL.

Verwaltungsrat (Board of Directors) – Zum Datum dieses Prospekts sind die Mitglieder des Verwaltungsrats (*Board of Directors*) der Gesellschaft (der "**Verwaltungsrat**" und seine Mitglieder die "**Verwaltungsratsmitglieder**") Dr Francis Wedin (geschäftsführender Vorsitzender), Herr Gavin Rezos (nicht geschäftsführender stellvertretender Vorsitzender, der zum 31. Dezember 2024 zurücktreten wird), Herr Cris Moreno (geschäftsführendes Verwaltungsratsmitglied/CEO), Herr Angus Barker (ab 1. Januar 2025 stellvertretender Vorsitzender, unabhängiges und nicht geschäftsführendes Verwaltungsratsmitglied), Dr Heidi Grön (nicht geschäftsführendes Verwaltungsratsmitglied), Frau Josephine Bush (nicht geschäftsführendes Verwaltungsratsmitglied), Frau Ranya Alkadamani (nicht geschäftsführendes Verwaltungsratsmitglied, die zum 31. Dezember 2024 zurücktreten wird) und Dr Günter Hilken (nicht geschäftsführendes Verwaltungsratsmitglied). Darüber hinaus wird Frau Felicity Gooding zum 1. Januar 2025 zum Executive Director ernannt (zusätzlich zu ihrer Rolle als CFO des Vulcan-Konzerns).

Abschlussprüfer – Der Abschlussprüfer der Gesellschaft ist RSM Australia Partners, Level 32, 2 The Esplanade, Perth WA 6000, Australien ("**RSM**").

2.2.2 Welche sind die wesentlichen Finanzinformationen über die Emittentin?

Die folgenden Finanzinformationen stammen oder sind abgeleitet von (i) den geprüften konsolidierten Abschlüssen der Gesellschaft, die in Übereinstimmung mit den vom Australian Accounting Standards Board ("**AASB**") herausgegebenen Australian Accounting Standards and Interpretations ("**AASI**") und dem Australian Corporations Act (A), zum und für das Geschäftsjahr bis zum 31. Dezember 2023 ("**FY23**") erstellt wurden (der "**konsolidierte Jahresabschluss 2023**"), (B) zum und für das kurze (sechsmonatige) Geschäftsjahr, das am 31. Dezember 2022 endete ("**SFY22**"), erstellt wurden (der "**konsolidierte Abschluss Rumpfgeschäftsjahr 2022**"), (C) zum und für das am 30. Juni 2022 endende Geschäftsjahr ("**FY22**") erstellt wurden (der "**konsolidierte Jahresabschluss 2022**"), (D) zum und für das am 30. Juni 2021 endende Geschäftsjahr ("**FY21**") (der "**konsolidierte Jahresabschluss 2021**") erstellt wurden und zusammen mit dem konsolidierten Jahresabschluss 2023, dem konsolidierten Abschluss Rumpfgeschäftsjahr 2022 und dem konsolidierten Jahresabschluss 2022 die "**Konsolidierten Jahresabschlüsse**" und (ii) dem ungeprüften konsolidierten Zwischenabschluss der Gesellschaft entnommen oder daraus abgeleitet, der in Übereinstimmung mit den vom AASB herausgegebenen AASI und dem Australian Corporations Act für den Sechsmonatszeitraum bis zum 30. Juni 2024 ("**H1/FY24**") erstellt wurde (der "**Ungeprüfte konsolidierte Zwischenabschluss 2024**" und zusammen mit den Konsolidierten Jahresabschlüssen die "**Konsolidierten Abschlüsse**").

Die Konsolidierten Abschlüsse entsprechen den International Financial Reporting Standards ("**IASB IFRS**"), wie sie vom International Accounting Standards Board ("**IASB**") entwickelt und veröffentlicht wurden. Gemäß Art. 1 a) der Entscheidung der Kommission vom 12. Dezember 2008 (2008/961/EG) sind die IASB IFRS als gleichwertig mit den nach der Verordnung (EG) Nr. 1606/2002 übernommenen IFRS anzusehen, sofern der Anhang des geprüften Abschlusses eine ausdrückliche und uneingeschränkte Erklärung enthält, dass dieser Abschluss den "International Financial Reporting Standards in Übereinstimmung mit IAS 1 Darstellung des Abschlusses" entspricht. Die konsolidierten Jahresabschlüsse

wurden von RSM geprüft, die jeweils einen uneingeschränkten Bestätigungsvermerk des unabhängigen Abschlussprüfers erteilt haben. Seit 2022 endet das Geschäftsjahr der Gesellschaft nicht mehr am 30. Juni, sondern am 31. Dezember. Infolgedessen besteht das SFY22 aus dem Sechsmonatszeitraum vom 1. Juli 2022 bis zum 31. Dezember 2022 und ist daher nicht vollständig mit den früheren und künftigen Geschäftsjahren der Gesellschaft vergleichbar, die Zwölfmonatszeiträume umfassen.

Bis zum Ende des FY21 war die Berichtswährung des Vulcan-Konzerns der Australische Dollar. Seit dem FY22 ist die Berichtswährung des Vulcan-Konzerns der Euro. Daher werden die Finanzinformationen für FY22, SFY22, FY23 und für H1/FY24 (im Vergleich zu dem Sechsmonatszeitraum bis zum 30. Juni 2023 ("**H1/FY23**") in Euro dargestellt und sind daher nicht direkt mit den Finanzinformationen für das FY21 vergleichbar, die in australischen Dollar dargestellt wurden.

Tabelle 1: Ausgewählte Finanzinformationen aus der Konzern-Gewinn- und Verlustrechnung

	H1/FY24	H1/FY23	FY23	SFY22	FY22	FY21
	EUR	EUR	EUR	EUR	EUR	A\$
	(ungeprüft)	(ungeprüft)	(geprüft)	(geprüft)	(geprüft)	(geprüft)
Umsatzerlöse aus fortgeführten Geschäftstätigkeiten	3.753.000	3.104.000	6.783.000	3.622.000	3.799.000	-
Sonstige Erträge	297.000	461.000	1.191.000	213.000	317.000	510.864
Finanzerträge	1.005.000	1.560.000	3.558.000	615.000	350.000	120.678
Verlust vor Ertragssteuergutschrift / ertrag	(19.148.000)	(15.995.000)	(28.804.000)	(13.553.000)	(18.486.000)	(10.744.614)
Den Anteilseignern von Vulcan Energy Resources Limited zuzurechnender Gesamtverlust für den Zeitraum	(20.314.000)	(18.978.000)	(31.227.000)	(15.098.000)	(11.861.000)	(10.844.607)

Tabelle 2: Ausgewählte Finanzinformationen aus der Konzernbilanz

	30. Juni 2024	31. Dez 2023	31. Dez 2022	30. Juni 2022	30 Juni 2021
	EUR	EUR	EUR	EUR	A\$
	(ungeprüft)	(geprüft)	(geprüft)	(geprüft)	(geprüft)
Gesamtvermögen	310.576.000	296.883.000	250.135.000	261.140.000	131.744.081
Gesamtverbindlichkeiten	22.234.000	28.602.000	16.974.000	13.817.000	2.759.534
Eigenkapital	288.342.000	268.281.000	233.161.000	247.323.000	128.984.547

Tabelle 3: Ausgewählte Finanzinformationen aus der Konzern-Kapitalflussrechnung

	H1/FY24	FY23	SFY22	FY22	FY21
	EUR	EUR	EUR	EUR	A\$
	(ungeprüft)	(geprüft)	(geprüft)	(geprüft)	(geprüft)
Nettomittelzufluss/(-abfluss) aus betrieblicher Tätigkeit	(12.513.000)	(24.331.000)	(7.418.000)	(11.347.000)	(2.841.145)
Nettomittelzufluss/(-abfluss) aus Investitionstätigkeit	(43.607.000)	(92.460.000)	(31.768.000)	(64.358.000)	(7.145.227)
Nettomittelzufluss/(-abfluss) aus Finanzierungstätigkeit	37.824.000	62.755.000	(462.000)	172.054.000	118.267.924

Tabelle 4: Alternative Leistungskennzahlen

Die folgenden Finanzinformationen sind alternative Leistungskennzahlen im Sinne der von der Europäischen Wertpapier- und Marktaufsichtsbehörde (European Securities and Markets Authority) am 5. Oktober 2015 herausgegebenen Leitlinien zu alternativen Leistungskennzahlen und sollten nicht als Alternativen zu den entsprechenden IASB IFRS oder IFRS Finanzkennzahlen betrachtet werden.

H1/FY24	H1/FY23	FY23	SFY22	FY22	FY21
EUR	EUR	EUR	EUR	EUR	A\$

	(ungeprüft)	(ungeprüft)	(geprüft)	(ungeprüft)	(ungeprüft)	(ungeprüft)
Investitionsausgaben ⁽¹⁾	30.290.000	24.434.000	90.820.000	30.704.000	67.880.000	7.239.989

⁽¹⁾ Investitionsausgaben beinhalten Investitionen in Sachanlagen und immaterielle Vermögensgegenstand.

2.2.3 Welche sind die zentralen Risiken, die für die Emittentin spezifisch sind?

- Die Aufsuchung und Gewinnung von Batterierohstoffen und geothermischer Energie sind risikoreiche Unternehmungen und es gibt keine Garantie dafür, dass die Aufsuchungsaktivitäten des Vulcan-Konzerns zu einer kommerziellen Gewinnung von Lithium oder zur nachhaltigen Produktion von Lithium oder erneuerbarer geothermischer Energie führen werden.
- Die allgemeine Nachfrage nach Lithium kann infolge neuer Markt- oder Technologieentwicklungen und anderer Faktoren zurückgehen. Alle diese Faktoren, die zu einem Rückgang der allgemeinen Nachfrage nach oder einer Erhöhung des allgemeinen Angebots an Lithium führen, können sich nachteilig auf das Geschäft des Vulcan-Konzerns auswirken.
- Die Lithiumpreise unterliegen unvorhersehbaren Schwankungen, die teilweise durch Veränderungen im globalen Angebot und der Nachfrage sowie durch internationale, wirtschaftliche und geopolitische Trends und Entwicklungen beeinflusst werden. Jede wesentliche Verringerung oder erhebliche Volatilität des Preises oder der Nachfrage nach Lithium könnte sich nachteilig auf das Geschäft und den Aktienkurs des Vulcan-Konzerns auswirken.
- Die geschätzten Explorations-, Entwicklungs- und Betriebskosten des Vulcan-Konzerns beruhen auf bestimmten Annahmen, und es kann nicht zugesichert werden, dass die Kostenschätzungen des Vulcan-Konzerns und die zugrunde liegenden Annahmen zur Gewinnung von Lithiumchemikalien aus Sole und erneuerbarer geothermischer Energie zu wirtschaftlich vertretbaren Bedingungen in der Praxis realisiert werden.
- Der Vulcan-Konzern befindet sich noch in der Entwicklungsphase und hat seit seiner Gründung Betriebsverluste erwirtschaftet. Es ist nicht gesichert, dass der Vulcan-Konzern mit seinen Projekten wirtschaftliche Rentabilität erreichen wird. Solange der Vulcan-Konzern nicht in der Lage ist, den Wert seiner Projekte zu realisieren, wird er keine Einnahmen aus der Produktion und dem Verkauf von Lithium erzielen und wahrscheinlich weiterhin Betriebsverluste erwirtschaften.
- Die Ressourcenschätzungen in Bezug auf die aktuellen und zukünftigen Projekte des Vulcan-Konzerns unterliegen bestimmten Annahmen und Interpretationen, die sich als ungenau erweisen können. Jegliche wesentliche Abweichung kann zu Änderungen der Entwicklungspläne führen, was sich wiederum nachteilig auf die Geschäftstätigkeit des Vulcan-Konzerns auswirken kann.
- Es gibt keine Garantie dafür, dass der Vulcan-Konzern in der Lage sein wird, alle erforderlichen Genehmigungen, Erlaubnisse und Zulassungen sowie Grundstücke für die Lithium- und geothermische erneuerbare Energieproduktion rechtzeitig oder überhaupt zu erhalten.
- Die Projekte des Vulcan-Konzerns könnten auf den Widerstand von relevanten Interessengruppen stoßen, was zu Verzögerungen, zusätzlichen Kosten, einer Baueinstellung oder einer Einstellung des Betriebs und zu Unsicherheit führen kann.
- Der Vulcan-Konzern wird erhebliche Finanzmittel benötigen, um die weitere Umsetzung des Projekts voranzutreiben. Wenn der Vulcan-Konzern nicht in der Lage ist, die Geplanten Finanzierungsvereinbarungen abzuschließen oder die Bedingungen der bestehenden oder der von ihr Geplanten Finanzierungsvereinbarungen mit verschiedenen Kreditgebern auf Projektebene einzuhalten oder zusätzliche Finanzmittel nach Bedarf zu akzeptablen Bedingungen oder überhaupt zu erhalten, muss er möglicherweise seine Entwicklungspläne aufgeben oder deren Umfang reduzieren und/oder ändern, was sich wiederum nachteilig auf die Geschäftstätigkeit des Vulcan-Konzerns auswirken kann.
- Der Vulcan-Konzern hat eine Kreditfazilität abgeschlossen und plant, kurzfristig umfangreiche Fremdfinanzierungsvereinbarungen abzuschließen, die nach Abschluss erhebliche Fremdkapitalfinanzierungskosten verursachen werden, die im Falle einer Erhöhung der Zinssätze weiter steigen könnten. Da in Zukunft mit einer erheblichen zusätzlichen Verschuldung zu rechnen ist, geht das Unternehmen davon aus, dass seine Fremdkapitalfinanzierungskosten in Zukunft weiter steigen werden.
- Die geothermischen Projekte des Vulcan-Konzerns unterliegen induzierten seismischen Risiken.
- Der Vulcan-Konzern könnte seine Verwaltungsratsmitglieder oder anderes Schlüsselpersonal verlieren oder möglicherweise nicht in der Lage sein, qualifiziertes Personal für Schlüsselpositionen zu gewinnen oder zu behalten. Ohne solche Verwaltungsratsmitglieder oder Schlüsselpersonen wäre der Vulcan-Konzern möglicherweise nicht in der Lage, sein Geschäft erfolgreich zu führen, zu entwickeln und zu betreiben.

- Die Risikomanagement- oder Compliance-Systeme des Vulcan-Konzerns waren oder sind möglicherweise nicht ausreichend, um rechtliche, steuerliche und operative Risiken angemessen zu verhindern oder aufzudecken.

2.3 Wichtige Informationen über die Wertpapiere

2.3.1 Welche sind die wichtigsten Merkmale der Wertpapiere?

Ausgabe Neuer Aktien – Die Gesellschaft hat, zusammen mit zwei internationalen Investmentbanken (zusammen die "**Konsortialbanken**"), die insgesamt 26.339.246 Neuen Aktien im Rahmen einer vollständig übernommenen institutionellen Platzierung in Höhe von 20.737.004 Neuen Aktien ("**Fest Übernommener Anteil Neuer Aktien**") und aufgrund einer gleichzeitigen Platzierung auf Basis einer festen Zeichnungsverpflichtung an strategische Investoren in Höhe von 5.602.241 Neuer Aktien ("**Unmittelbar Gezeichneter Anteil Neuer Aktien**") angeboten und platziert. Die Neuen Aktien sollen am 18. Dezember 2024 ausgegeben werden.

Anzahl und Art der Aktien – Zum Datum dieses Prospekts sind 188.188.571 bestehende Aktien ausgegeben. Unter der Annahme der vollständige Ausgabe der Neuen Aktien würden 214.527.816 Aktien nach der Durchführung der Kapitalerhöhung im Zusammenhang mit den Neuen Aktien ausgegeben sein. Bei allen Aktien handelt es sich um voll eingezahlte Stammaktien.

ISIN und Währung – Die ISIN der Aktien lautet AU0000066086 und die Aktien lauten auf Australische Dollar (A\$).

Mit den Aktien verbundene Rechte und Übertragbarkeit – Alle Aktien unterliegen der Satzung der Gesellschaft, dem Australischen Unternehmensgesetz, den ASX- Börsenzulassungsregeln und dem allgemeinen australischen Recht. Alle Aktien sind voll dividendenberechtigt. Jede Aktie gewährt eine Stimme in der Hauptversammlung der Gesellschaft. Die Aktien sind frei übertragbar, vorbehaltlich formeller Erfordernisse, anwendbarer Wertpapiergesetze ausländischer Jurisdiktionen, dass die Eintragung der Übertragung nicht zu einem Verstoß gegen die Bestimmungen eines australischen Gesetzes führt und dass die Übertragung nicht gegen das australische Unternehmensgesetz oder die ASX- Börsenzulassungsregeln verstößt. Im Falle einer Insolvenz ist die Haftung einer Person als Aktionär auf den Betrag beschränkt, der für ihre Aktien nicht eingezahlt wurde.

Dividendenpolitik – Die Gesellschaft beabsichtigt in absehbarer Zukunft nicht, Dividenden zu zahlen. Jede künftige Entscheidung über die Zahlung von Dividenden durch die Gesellschaft liegt im Ermessen des Verwaltungsrats und hängt von der finanziellen Lage der Gesellschaft, dem künftigen Kapitalbedarf und dem allgemeinen Geschäftsverlauf sowie anderen Faktoren ab, die der Verwaltungsrat für relevant hält.

2.3.2 Wo werden die Wertpapiere gehandelt?

Für die bestehenden Aktien der Gesellschaft besteht eine Doppelnotierung und sie können (i) an der offiziellen Liste der ASX sowie (ii) am geregelten Markt (Prime Standard) der FWB unter dem Tickercode "VUL" gehandelt werden. Es wird erwartet, dass die Neuen Aktien gleichzeitig an der ASX und der FWB unter demselben Tickercode "VUL" zum Handel zugelassen werden.

2.3.3 Welche sind die zentralen Risiken, die für die Wertpapiere spezifisch sind?

- Zukünftige Kapitalerhöhungen, wie das geplante Angebot der Zusätzlichen Neuen Aktien, könnten zu einer erheblichen Verwässerung der Anteile der Aktionäre an der Gesellschaft und ihrer Stimmrechte führen und sich nachteilig auf den Marktpreis der Aktien auswirken.
- Der Marktpreis und das Handelsvolumen der Aktien könnten erheblich schwanken, auch zwischen der ASX und der FWB, was zu erheblichen Verlusten für Investoren führen kann. Unterschiede im Marktpreis, Handelsvolumen, Abwicklungs- und Clearing-Systemen, Handelswährungen und Transaktionskosten zwischen der ASX und der FWB können die Übertragbarkeit der Aktien zwischen der ASX und der FWB behindern.

2.4 Basisinformationen über das Angebot von Wertpapieren und die Zulassung zum Handel an einem regulierten Markt

2.4.1 Zu welchen Konditionen und nach welchem Zeitplan kann ich in dieses Wertpapier investieren?

Kapitalerhöhung – Die Neuen Aktien stammen aus der Kapitalerhöhung gegen Bareinlage, die vom Verwaltungsrat am 9. Dezember 2024 im Rahmen einer umfassenderen Kapitalbeschaffung beschlossen wurde, bestehend aus (i) 26.339.246 Neuen Aktien und die Zusätzlichen Platzierungsaktien (wie nachstehend definiert), die im Rahmen einer Platzierung unter Nutzung der bestehenden Platzierungskapazität der Gesellschaft bei institutionellen Anlegern zu einem Bruttoemissionserlös in Höhe von ca. 100 Millionen EUR (164 Millionen AUD) platziert wurden (das "**Institutionelle Angebot**") und (ii) bis zu etwa 3.418.803 neue Stammaktien im Rahmen eines nicht gezeichneten Aktienkaufplans (SPP), der berechtigten bestehenden Aktionären angeboten wird und auf die Beschaffung von bis zu 12,2 Mio. EUR (20 Mio. AUD) abzielt (zusammen die "**Kapitalerhöhung** oder die "**Eigenkapitalbeschaffung**"). Im Rahmen des Institutionellen Angebots hat die Gesellschaft zusammen mit den Neuen Aktien aufgrund einer verbindlichen weiteren Zusage 1.680.672 neue Stammaktien an einen strategischen Investor platziert ("**Zusätzliche Platzierungsaktien** und zusammen mit den Neuen Aktien, die "**Platzierungsaktien**"). Sämtliche 28.019.917 Platzierungsaktien wurden jeweils zu einem Angebotspreis von EUR 3,57 (A\$ 5,85) pro Aktie (der "**Angebotspreis**") angeboten und platziert.

Die Gesellschaft hat außerdem am 9. Dezember 2024 im Zusammenhang mit der Kapitalerhöhung beschlossen, bis zu etwa 3.418.803 neue Aktien aus einer Kapitalerhöhung gegen Bareinlage mittels eines nicht garantierten Aktienkaufplans (SPP), der berechtigten bestehenden Aktionären angeboten wird und auf die Beschaffung von bis zu 12,2 Mio. EUR (20 Mio. AUD) abzielt ("**Zusätzliche SPP Aktien**" und zusammen mit den Zusätzlichen

Platzierungsaktien, die "**Zusätzlichen Neuen Aktien** "). Die Ausgabe der Zusätzlichen Neuen Aktien wird für Januar 2025 erwartet und ist nicht Gegenstand der Zulassung zum Handel im Rahmen dieses Prospekts.

Zulassung zum Handel– Die Neuen Aktien werden voraussichtlich zum Handel am regulierten Markt der FWB mit gleichzeitiger Zulassung zum Teilbereich des regulierten Marktes mit zusätzlichen Zulassungsfolgepflichten (Prime Standard) am oder um den 19. Dezember 2024 zugelassen werden. Es wird erwartet, dass die Neuen Aktien gleichzeitig zum Handel an der ASX zugelassen werden.

Übernahmevertrag – Am 10. Dezember 2024 haben die Konsortialbanken und die Gesellschaft einen Übernahmevertrag in Bezug auf die garantiert übernommenen Neuen Aktien ("**Übernahmevertrag**") abgeschlossen. Der Übernahmevertrag sieht eine feste Übernahmeverpflichtung für den Fest Übernommenen Anteil Neuer Aktien vor, vorbehaltlich der Bedingungen des Übernahmevertrags.

Verwässerung – Ausgehend von 188.188.571 unmittelbar vor der Institutionellen Angebot ausstehenden Aktien und unter der Annahme, dass keiner der bestehenden Aktionäre Platzierungsaktien im Rahmen des Institutionellen Angebots zeichnet, würde sich der prozentuale Anteil jedes Aktionärs am Aktienkapital und an den Stimmrechten der Gesellschaft um 12,96 % je bestehender Aktie verringern.

Der Nettovermögenswert des Eigenkapitals der Gesellschaft zum 30. Juni 2024 errechnet sich aus der Differenz der „Summe der Vermögenswerte“ abzüglich der Summe der „langfristigen Verbindlichkeiten“ und der Summe der „kurzfristigen Verbindlichkeiten“, die jeweils als Posten im ungeprüften konsolidierten Zwischenabschluss 2024 zum 30. Juni 2024 ausgewiesen sind, und betrug EUR 288.342 Tausend und damit EUR 1,53 je Aktie auf Grundlage von 188.188.571 ausstehenden Aktien zum 30. Juni 2024.

Basierend auf dem Vorangegangenen und nach Abzug der Provisionen, Gebühren und sonstigen Aufwendungen im Zusammenhang mit dem institutionellen Angebot und der Zulassung zum Handel in Höhe von ca. EUR 3.500 Tausend hätte der Nettovermögenswert des Eigenkapitals der Gesellschaft zum 30. Juni 2024 EUR 384.842 Tausend bzw. EUR 1,78 je Aktie betragen (berechnet auf der Grundlage der Anzahl der nach Durchführung der Kapitalerhöhung im Zusammenhang mit den Platzierungsaktien ausgegebenen 216.208.488 Aktien).

Dies entspricht einer Erhöhung des Nettovermögenswerts des Eigenkapitals der Gesellschaft um EUR 0,25 oder 16,33 % je Aktie für die Altaktionäre, da der bereinigte Nettovermögenswert des Eigenkapitals der Gesellschaft den vorherigen Nettovermögenswert des Eigenkapitals um diesen Betrag bzw. diesen Prozentsatz übersteigt. Für die Erwerber der Neuen Aktien zum Angebotspreis (von EUR 3,57) bedeutet dies einen theoretischen Verlust von EUR (1,79) oder (50,14)% je Aktie gegenüber dem Nettovermögenswert des Eigenkapitals der Gesellschaft.

2.4.2 Wer ist der Anbieter und die die Zulassung zum Handel beantragende Person?

Zulassung zum Handel – Die Gesellschaft hat die Zulassung zum Handel der Neuen Aktien beantragt.

2.4.3 Weshalb wird dieser Prospekt erstellt?

Gründe für die Zulassung zum Handel, Kosten und Verwendung der Erlöse – Die Gesellschaft strebt die Zulassung zum Handel in Verbindung mit der Ausgabe der Neuen Aktien an, um im Rahmen der Institutionellen Angebots (als Teil der Kapitalerhöhung) zusätzliche Mittel für die Finanzierung der Phase Eins des Projekts des Vulcan-Konzerns und für das weitere Wachstum der Gesellschaft zu beschaffen.

Die Gesellschaft strebt Bruttoerlöse von etwa EUR 100 Millionen (A\$ 164 Millionen) aus dem Institutionellen Angebot an, die sich aus der Ausgabe der Platzierungsaktien ergeben. Die Kosten der Gesellschaft im Zusammenhang mit der Zulassung zum Handel und dem Institutionellen Angebot werden sich voraussichtlich auf etwa EUR 3,5 Millionen belaufen. Die Gesellschaft beabsichtigt, die Nettoerlöse aus der Kapitalerhöhung wie folgt zu verwenden: (i) Beginn der Ausführung des Feldentwicklungsplan und der ersten Produktionsbrunnens, (ii) Beginn des Baus der ORC-Anlage, des Kühlturms, des 110-kV-Umspannwerks und der Pipeline sowie Abschluss von Verträgen mit begrenzter Laufzeit für das LEP und das CLP, (iii) Grundstückserwerb und Einrichtung des LEP/CLP-Standorts, Fertigstellung des integrierten Pipeline-Loops in Insheim, Eingehung von Verpflichtungen für wichtige Investitionsposten, (iv) Betriebskosten zur Unterstützung der Phase Eins vor Ort, (v) der verbleibende Betrag wird für Betriebsausgaben zur Unterstützung des Projektes vor Ort und den Gesellschaftswecke verwendet.

Wesentliche Interessenkonflikte – Es bestehen keine Interessenkonflikte in Bezug auf die Zulassung zum Handel.

II. MAIN PART OF THE PROSPECTUS

1. RISK FACTORS

*An investment in the shares of Vulcan Energy Resources Limited (hereinafter the "**Company**" and together with its consolidated subsidiaries, "**Vulcan Group**") (each a "**Share**" and together the "**Shares**") is subject to a number of risks. Investors should carefully consider the following risks in this prospectus (the "**Prospectus**") when deciding whether to invest in the Shares.*

According to article 16 of the Prospectus Regulation, the risk factors featured in a prospectus must be limited to risks which are specific to the issuer and/or to the securities and which are material for taking an informed investment decision. Therefore, the following risks are only those material risks that are specific to the Company and the Shares. The following risk factors are categorised into subcategories based on their respective nature. In each category the two most material risk factors are mentioned first based on the Company's current assessment with respect to the probability of their occurrence and the expected magnitude of their negative impact. The risks mentioned may materialize individually or cumulatively.

1.1 Industry Specific Risks

1.1.1 **Battery raw materials and geothermal energy exploration and development are high-risk undertakings and there is no assurance that Vulcan Group's exploration and development activities will result in the commercial production of lithium or geothermal renewable energy.**

With its integrated lithium chemicals and renewable energy production project (the "**Project**" or "**Vulcan Group's Project**"), Vulcan Group intends to combine the operations of production of lithium from geothermal brines in the Upper Rhine Valley of Germany, using its own direct lithium extraction technology to extract lithium from geothermal brine and then upgrading lithium through electrolysis to a high purity lithium hydroxide monohydrate ("**LHM**") (Vulcan Group's lithium business) and of producing geothermal energy (Vulcan Group's renewable energy business). As part of its lithium business, Vulcan Group is developing opportunities to extract lithium-rich geothermal brines at various locations throughout the Upper Rhine Valley of Germany and in France with the aim to produce a battery-quality LHM chemical product. With the exception of its operational geothermal renewable energy plant in Insheim, Germany, Vulcan Group's property interests are at the development stage, and the Company is currently targeting – subject to obtaining further necessary funding and permits – commencement of commercial production from Phase One in 2027. Accordingly, it is not envisaged that Vulcan Group will generate material revenues or realise profits in the lithium business in the short term, and there can be no assurance that Vulcan Group will realise profits from its lithium and renewable energy operations in the medium to long term or at all. Any future profitability, or the level of such profitability, of Vulcan Group's lithium business and renewable energy business will be dependent upon the development of an economically recoverable lithium and renewable energy resource and further exploration and development of other economically recoverable lithium deposits and geothermal resources. Any quantity or grade of lithium resources and/or reserves or geothermal resources the Company indicates on its project areas must be considered as estimates only until such resources and/or reserves are actually extracted and processed. Any material change in the quantity or grade of lithium resources and/or reserves or geothermal resources may affect the economic viability of Vulcan Group's projects.

Further, the Company cannot assure that any lithium and/or geothermal energy can be commercially extracted from Vulcan Group's property interests. The exploration and development of lithium and geothermal deposits involves a high degree of technical, operational, commercial and financial risk over a significant period of time, which may not be eliminated even with the combination of careful evaluation, experience and knowledge of Vulcan Group's management team. It is impossible to ensure that Vulcan Group's current exploration and development programs will result in profitable commercial lithium and geothermal renewable energy production operations. The profitability of Vulcan Group's operations will be, in part, directly related to the cost and success of its exploration and development programs. Higher than expected expenditures may be required to establish reserves that are sufficient for commercial extraction and to construct, complete and install the necessary facilities and infrastructure (including geothermal plants, lithium extraction facilities and central processing facilities) in those project areas that are developed. Moreover, Vulcan Group's planned operations involve several complex processes, the combination of which is therefore subject to technical risks (see section "1.2.1 Vulcan Group is still in the development stage and has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve

commercial viability through its projects. Until Vulcan Group is able to realise value from its Project, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses."). In addition, exploration and development projects like Vulcan Group's Project have no proven operating history upon which to base estimates of future operating costs and capital requirements and there are no existing operating lithium production businesses in the Upper Rhine Valley comparable to Vulcan Group's. Any future estimates of reserves, lithium extraction recoveries or cash operating costs of Vulcan Group's exploration projects, will, to a large extent, be based upon the interpretation of geological, chemical and chemical engineering data, obtained from a limited number of sampling techniques, pilot extraction operations and preliminary or definitive feasibility studies (see section "1.2.1 Vulcan Group is still in the development stage and has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its Project, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses.""). Actual operating costs and economic returns of Vulcan Group's exploration and development projects may materially differ from the costs and returns estimated in the Company's feasibility studies.

Any of the above developments could result in a delay to entering into the production phase or in not being able to enter into the production phase at all, or could significantly add to the project costs, any of which could have a material adverse effect on Vulcan Group's ability to generate revenues or realise profits from its lithium business and/or renewable energy business and on its business, prospects, financial condition and results of operations.

1.1.2 General demand for lithium may decrease as a result of new market or technological developments and other factors. Any such factors resulting in a decrease in the general demand for, or an increase in the general supply for, lithium may have a detrimental effect on Vulcan Group's business.

Provided it commences commercial production, Vulcan Group intends to generate a substantial majority of its future revenues from the production and sale of lithium. If Vulcan Group achieves commercial production of LHM, the marketability of and demand for any chemicals produced may be affected by numerous factors beyond the control of Vulcan Group. These factors include new market developments and technological advancements, each of which may negatively impact the demand for the lithium Vulcan Group may produce and the market price of lithium (see section "1.1.3 Lithium prices are subject to unpredictable fluctuations, driven in part by changes in the balance of global supply and demand as well as international, economic and geopolitical trends and developments. Any material decrease or significant volatility in the price of or demand for lithium could have a detrimental effect on Vulcan Group's business and share price.").

While lithium and its derivatives are currently preferred raw materials for certain industrial applications, such as rechargeable lithium batteries, some materials and technologies are being researched and developed with the goal of making batteries less expensive. Some of these materials and technologies could lead to a reduced demand for LHM, and, accordingly, adversely affect Vulcan Group's business. For example, different application methods or the development of substitutes for lithium batteries in electric and hybrid vehicles, consumer electronics and other applications such as batteries with a sodium-ion basis may reduce the overall demand for lithium. Also, new technologies may emerge to lower the cost of production for such substitutes which would place cost pressures on Vulcan Group and impact its ability to competitively produce and market lithium. Whilst most automotive and battery companies are investing in the increased production of lithium-based batteries, particularly for automotive purposes, the Company cannot predict which new materials or new technologies may ultimately prove to be commercially viable and in what time-frame. In addition, alternatives to lithium may become more economically attractive as global commodity prices shift. Any of these events could adversely affect demand for lithium, thereby resulting in a material adverse effect on the economic feasibility of producing lithium from Vulcan Group's licence areas.

1.1.3 Lithium prices are subject to unpredictable fluctuations, driven in part by changes in the balance of global supply and demand as well as international, economic and geopolitical trends and developments. Any material decrease or significant volatility in the price of or demand for lithium could have a detrimental effect on Vulcan Group's business and share price.

Provided it commences commercial production, Vulcan Group intends to generate a substantial majority of its future revenues from the production and sale of lithium chemicals, with such sales partly to be made at prevailing market prices for lithium chemicals, as calculated by reference to market recognised price reporting agency ("PRA") contract-based indices. The price of lithium chemicals has, and may continue, however, to fluctuate widely and is affected by numerous factors beyond Vulcan Group's control, including international, economic and geopolitical trends and developments such as de-globalisation, government policies, regulatory trends and developments to promote battery electric vehicles ("**BEVs**"), BEV tariffs, currency exchange fluctuations, interest rates, global or regional consumptive patterns, speculative activities, increased production due to new extraction developments and improved extraction and production methods and technological changes in the markets for the end products, such as the market for rechargeable batteries and any other factors negatively affecting the general demand for lithium (see section "1.1.2 General demand for lithium may decrease as a result of new market or technological developments and other factors. Any such factors resulting in a decrease in the general demand for, or an increase in the general supply for, lithium may have a detrimental effect on Vulcan Group's business."). As BEV uptake is heavily reliant on government regulations and incentives, demand for BEVs (and, in turn, lithium products for BEV batteries) will be affected by any changes in government policy affecting these regulations and incentives, and import tariffs. Forecasts for growth in BEV uptake are subject to a degree of uncertainty, and the level of actual BEV uptake will have a strong correlation with demand for lithium products and the price at which it is sold. Any decrease or significant volatility in the price of or any decrease in the general demand for lithium chemicals could have an adverse effect on Vulcan Group's future earnings, competitive position, financial viability and results of operations. In addition, any material decrease of the market price of lithium is likely to have a negative effect of the stock exchange price of Vulcan Group.

1.1.4 Vulcan Group's estimated development and operating costs are based on certain assumptions and no assurance can be given that Vulcan Group's cost estimates and the underlying assumptions to extract lithium chemicals from brine and renewable geothermal energy on commercially viable terms will be realised in practice.

Vulcan Group's development and operational costs are based on certain assumptions with respect to the timing and the method of development and operation. These estimates and assumptions are subject to uncertainties and, accordingly, the actual costs may materially differ from these estimates and assumptions. Vulcan Group's development and operational costs vary depending on, among other factors, future wage levels, future prices for certain equipment and components as well as future inflation rates, some of which factors have increased substantially in the recent past. As for inflation, for example, inflation rates across the Eurozone have fluctuated significantly, increasing from 1.3% in March 2021 to 10.1% in November 2022, before reducing to 2.0% in October 2024 (source: Harmonised Index of Consumer Prices ("**HICP**") of the European Central Bank ("**ECB**") heavily impacting forward-looking cost estimates. Vulcan Group has not yet completed a definitive feasibility study with respect to any future phases of the Project, and, accordingly, there is even less certainty regarding the expected exploration, development and operational costs associated with the targeted production levels for future phases. Therefore, any estimates regarding the future development of these and other factors and any underlying assumptions may not prove correct and there is no guarantee that the cost estimates and the underlying assumptions will be realised in practice or that Vulcan Group will achieve commercial viability through the development of the Project (see section "1.2.1 Vulcan Group is still in the development stage and has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its Project, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses."). Should the actual costs differ materially from the estimates and assumptions on which Vulcan Group's development plans are based, this may materially adversely affect the prospects of Vulcan Group's business and operations.

1.1.5 Lithium exploration and development companies face risks along the entire value chain to extract and produce lithium, which may result in substantial delays or operational shut-downs, may require significant capital outlays or may result in an inadequate return or loss on invested capital.

Lithium exploration and development companies such as the Company operate along a value chain to extract and produce lithium. As a result, such companies face risks along the entire value chain. Current and expected future operations of Vulcan Group include a broad range of activities including exploration, appraisal, development and possible lithium production. These activities may be affected by a range of factors, including, but not limited to, the acquisition and/or delineation of economically recoverable mineralisation and heat, geological conditions, receiving the necessary approvals from all relevant authorities and parties, seasonal weather patterns and workforce availability, as well as risks arising from unanticipated technical and operational difficulties encountered in extraction and production activities, mechanical failure of operating plant and equipment, shortages or increases in the price of consumables, spare parts and plant and equipment, cost overruns, access to the required level of funding and contracting risk from third parties providing essential services, the COVID-19 pandemic and any other possible future outbreaks of diseases or pandemics as well as the Russia-Ukraine Conflict and its repercussions. For example, during the development of the Project up to the date of this Prospectus, certain key project milestones such as the completion of the various engineering and feasibility studies for Phase One, the expected start of commercial lithium production and the anticipated start of the deliveries under the lithium offtake agreements concluded by the Company have had to be delayed and further project milestones may have to be postponed (also see section "1.1.8 Geopolitical developments, changes and updates of trade and public health policy and developments of defence and security policy of the US, Russia, China and other countries have adversely affected, and may continue to adversely affect, the availability and price of equipment, components and energy, supply chains, international trade, financing conditions and the global economy at large, which has had, and may continue to have, a detrimental effect on Vulcan Group's business."). In addition, if and when Vulcan Group commences production, its operations may be disrupted by a variety of risks and hazards, many of which are beyond the control of Vulcan Group. Examples of events which could have such an impact include unscheduled plant shut-downs or other processing problems, mechanical failures, the unavailability, scarcity or the delayed supply of materials and equipment (including, for example, long-lead items) or labour, poor or unexpected geological or metallurgical conditions, poor water condition, interruptions to electricity supplies, human error and adverse weather conditions. While the exact effect of these factors cannot be accurately predicted, each of these factors (or a combination thereof) may result in substantial delays or operational shut-downs, may require significant capital outlays or may result in an inadequate return or loss on invested capital. In addition, the materialisation of any such risk may adversely affect Vulcan Group's future earnings and competitive position and its business, prospects, financial condition and results of operations.

1.1.6 Any increase in the production of LHM and lithium carbonate from current or new competitors in the lithium markets could adversely affect prices or Vulcan Group's competitive position.

New and existing companies globally have significantly increased the supply of LHM and lithium carbonate, which has affected the lithium price, in addition to the impact of demand factors. Currently, new lithium chemicals projects are under development globally. Whilst lithium demand is forecast to continue to grow strongly (source: Market report prepared by Benchmark Mineral Intelligence, commissioned by the Company, dated 19 July 2024 ("**BMI Analysis**")), there can be no assurance that this growth will materialise. Even if demand for lithium does grow, if competing projects under development are completed in the short- or medium-term, the increase in lithium supply could adversely affect the market price of lithium, thereby resulting in a material adverse effect on the economic feasibility of producing and processing lithium chemicals from brine in Vulcan Group's project areas and reducing or eliminating any reserves Vulcan Group may identify from time to time.

In addition, current and potential competitors may have larger financial resources or governmental support and, accordingly, may be able to launch new or expand existing LHM production operations faster or on a broader scale than Vulcan Group. New and existing competitors may also establish themselves in the Upper Rhine Valley of Germany or France, where Vulcan Group is currently conducting its exploration and development activities at various locations, and attempt to replicate Vulcan Group's business model of extracting lithium from geothermal brines. Should any of these

scenarios materialise, this could have a material adverse effect on the Company's competitive position and future earnings.

1.1.7 Any decrease in the price or demand for geothermal energy may have a detrimental effect on Vulcan Group's business.

Vulcan Group's business model includes developing, owning and operating geothermal plants within its project areas. In December 2021, Vulcan Group acquired Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH ("**Natürlich Insheim**")). Natürlich Insheim owns and operates a deep geothermal power plant in Insheim, Germany (the "**Insheim Plant**"). The Insheim Plant produces renewable energy and the revenues from the produced electricity are subject to the subsidised remuneration regime under the German Renewable Energy Act (*Erneuerbare-Energien-Gesetz*) 2023 for which currently a regulated tariff of 252 EUR/MWh is paid. The regulated tariff applies for a remuneration period of 20 full years plus the year of commissioning of a geothermal plant (in the case of the Insheim Plant: 2012). After the expiry of this remuneration period in 2033, the Insheim Plant's future revenues will depend upon the applicable market price for renewable energy at that time.

Additionally, Vulcan Group anticipates constructing one new geothermal operation as part of Phase One. The brine from this operation will be utilised in Vulcan Group's lithium business; however, they will also produce electricity and heat at a new geothermal plant to be built by Vulcan Group as part of Phase One (referred to as "**D12**"); such construction will be dependent, inter alia, on a positive decision by the City of Landau, which is expected to reach a decision in the second quarter of 2025. Vulcan Group currently intends to sell the electricity and the majority of heat produced to the grid and local third-party customers, respectively, the latter of which Vulcan Group expects will primarily consist of local municipalities and businesses. Accordingly, provided the Project reaches commercial production, Vulcan Group's economic exposure to the prices of electricity and heat will increase.

The market prices of energy may fluctuate widely and are affected by numerous factors beyond Vulcan Group's control, including international, economic and geopolitical trends and developments, regulatory developments to promote renewable energy, currency exchange fluctuations, interest rates, global or regional consumptive patterns and speculative activities. Any material decrease in the price or demand for renewable energy may have an adverse effect on Vulcan Group's earnings.

1.1.8 Geopolitical developments, changes and updates of trade and public health policy and developments of defence and security policy of the US, Russia, China and other countries have adversely affected, and may continue to adversely affect, the availability and price of equipment, components and energy, supply chains, international trade, financing conditions and the global economy at large, which has had, and may continue to have, a detrimental effect on Vulcan Group's business.

Vulcan Group's business in its current phase is sensitive to geopolitical developments, changes and updates of trade policy and developments of defence and security policy of the US, Russia, China and other countries. Vulcan Group's business is reliant on the availability, steady supply and the stability and/or predictability of the prices of equipment and components, some of which need to be shipped long-way or from overseas. As a result, Vulcan Group is dependent on stable supply chains, open seaways and favourable trade policies for deliveries of equipment and components. Any development negatively impacting the availability, the supply and the stability and/or predictability of the prices of equipment and components may adversely affect Vulcan Group's business, prospects, financial condition and results of operations.

For example, the armed conflict waged upon Ukraine by Russia (the "**Russia-Ukraine Conflict**") has prompted numerous countries and international organisations, including the European Union, to impose sanctions on the Russian and Belarusian governments and Russian and Belarusian public and private entities and individuals. These sanctions include, among others, trade embargoes, travel bans, asset freezes and the exclusion of certain banks from the global financial system. In response thereto, Russia and Belarus have imposed countermeasures on persons and entities and terminated gas supply contracts to several entities and countries, including in the European Union. Similarly, the measures taken by governments worldwide in response to the spread of the COVID-19 pandemic included the imposition of quarantine and isolation requirements and mobility restrictions as well as other restrictions. The Russia-Ukraine Conflict and the related sanctions and counter-measures have created significant uncertainty in the global economy and reinforced pressures on already fragile global economic conditions as a result of the COVID-19 pandemic, increasing inflation and leading

to rising interest rates imposed by central banks globally to counter such inflation as well as slowing economic growth, overall increasing the risk of a large-scale recession globally or in major economies including Germany, France and Italy where Vulcan Group principally operates.

Certain equipment and components required by Vulcan Group for the development of its business have become more difficult to source or take longer periods of time to be shipped and prices for such equipment and components have increased. Also, Vulcan Group has in the past experienced some delays on construction of its lithium extraction optimisation plant ("**LEOP**") due to supply chain disruptions, and other factors such as timing of public funding schemes related to financing, resulting in longer delivery times, which the Company believes have had their roots mainly in the COVID-19 pandemic and Russia-Ukraine Conflict and their respective broader repercussions. These supply chain disruptions have in the past contributed to delays in the target date of finalising its definitive feasibility study ("**DFS**") for Phase One and the target date for the commencement of commercial production which was moved to 2027.

Going forward, it cannot be excluded that the Russia-Ukraine Conflict escalates further and that further sanctions and counter-measures will be taken by the European Union, Russia, Belarus and other countries and organisations or that further armed conflicts break out or that ongoing conflicts increase in intensity. Similarly, going forward, contagious diseases or pandemics could break out in the future and governments could resort to taking restrictive measures in response. In addition, the recent U.S. elections and potential policy shifts under the new Trump administration could introduce significant geopolitical and regulatory uncertainties. Changes in trade policies, international relations, and regulatory frameworks may adversely impact market conditions and Vulcan Group's operations. Any such event or development or any other geopolitical developments, changes and updates of trade and public health policy and developments of defence and security policy of the US, Russia, China and other countries could have a material adverse effect on Vulcan Group's business, prospects, financial condition and results of operations.

1.2 Business Risks

1.2.1 Vulcan Group is still in the development stage and has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its Project, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses.

The Company was incorporated in February 2018 and acquired Vulcan Energy Resources Pty Ltd (later renamed Vulcan Energy Resources Europe Pty Ltd) which held the flagship Project in September 2019. Vulcan Group is developing opportunities to extract and produce lithium chemicals and produce geothermal energy from brine at various locations throughout the Upper Rhine Valley of Germany and France, with the primary focus being Phase One. As a business which is still in the development stage, Vulcan Group has not generated any significant revenues (with its limited revenue from continuing operations to date being attributable primarily to the operations of the Insheim Plant acquired in December 2021). Moreover, due to its investments including, in particular, company acquisitions, hiring of personnel, acquisition of seismic data, undertaking feasibility studies and pilot testing works, Vulcan Group has incurred significant operating losses. Relating to its Project, Vulcan Group has so far only carried out a pre-feasibility study ("**PFS**"), a definitive feasibility study for Phase One ("**DFS**") and a bridging engineering study for Phase One ("**Bridging Study**") as well as a validation phase for Capital expenditure. Vulcan Group has not yet carried out any definitive studies on its pipeline of future phases (beyond Phase One). Vulcan Group may therefore at this stage not have sufficient data to address and properly assess the risks frequently encountered by lithium and geothermal companies with a limited operating history, including its ability to:

- develop and operate its Project;
- complete a definitive feasibility study and/or realise the Company's targeted results in connection to future phases of production (beyond Phase One);
- operate LEOP and CLEOP optimisation plants long enough to generate sufficient training, data and qualification material; and

- conduct profitable lithium extraction and processing operations, as well as geothermal renewable energy operations.

Moreover, investors should not rely on the results of the PFS or the DFS as the Company considers that the material assumptions underpinning these studies to be no longer correct in light of the additional studies undertaken in preparing the Bridging Study and the end of validation review ("**EOV Review**") for Phase One and further developments since the PFS and the DFS were published, respectively.

The operations of Vulcan Group may be affected by various factors, including delays with obtaining necessary permits to conduct its business; failure to locate or identify lithium and geothermal deposits; operational failures and delays as a result of exploration and production activities being carried out in geological fault zones; failure to achieve predicted grades in exploration and brine extraction; more rapid depletion of lithium resources in Vulcan Group's licence areas than expected or forecasted; inability to inject brine at the planned rates and in the expected locations; failure to achieve estimated permeability, flow rates as well as brine temperature and heat from geothermal wells; difficulties in commissioning and operating plant and equipment; downhole collision, scaling, corrosion or operation all of which may affect the drilling equipment; insufficient deep well data; lower than expected, interrupted or limited brine recovery or performance; insufficient or delayed supply of VULSORB®, mechanical failure and plant breakdown; unanticipated metallurgical problems which may affect extraction rates and costs; adverse weather conditions; industrial and environmental accidents; any future outbreaks of diseases or pandemics (such as the COVID-19 pandemic); the Russia-Ukraine Conflict and its broader repercussions; industrial disputes; and unexpected shortages or increases in the costs of labour, consumables, spare parts, plant and equipment. No assurances can be given that Vulcan Group will achieve commercial viability through the successful exploration, development and/or processing activities of the Project.

Vulcan Group is attempting to develop a new type of operation, involving direct extraction of lithium from heated brines with a carbon neutral footprint. Whilst the Company is using existing technologies or technologies with commercial analogues, the Company believes this combination of processes is commercially unique and therefore carries a degree of technical risk. More specifically, such technical risks may include, but are not limited to, not achieving design plant operational readiness, efficiency, performance or availability (including operating impacts). In addition, Vulcan Group's targeted timeline for development of its geothermal and lithium operations is tight, and could be subject to delays. For example, during the development of the Project up to the date of this Prospectus, certain key project milestones such as the expected start of commercial lithium production and the anticipated start of the deliveries under the lithium offtake agreements concluded by the Company have had to be delayed and further project milestones may have to be postponed (also see section "1.1.8 Geopolitical developments, changes and updates of trade and public health policy and developments of defence and security policy of the US, Russia, China and other countries have adversely affected, and may continue to adversely affect, the availability and price of equipment, components and energy, supply chains, international trade, financing conditions and the global economy at large, which has had, and may continue to have, a detrimental effect on Vulcan Group's business."). Furthermore, Vulcan Group may not obtain the necessary brine flow rates or may encounter difficulties surrounding the timely completion of the construction of geothermal wells, particularly with the appointment of engineering, procurement and construction ("**EPC**") and engineering, procurement and construction management ("**EPCM**") contractors who may have limited involvement in the Project development to date.

The prospects of Vulcan Group must be considered in light of the risks, expenses and difficulties frequently encountered by companies in the corresponding stage of development, which have a high level of inherent uncertainty. No assurance can be given that Vulcan Group will achieve commercial viability through the successful development of its Project. Until Vulcan Group can realise value from its Project, it is likely to continue to incur ongoing operating losses.

1.2.2 The resource estimates relating to Vulcan Group's current and future projects are subject to certain assumptions and interpretations which may prove to be inaccurate. Any material deviations may result in alterations to development plans which may, in turn, adversely affect Vulcan Group's operations.

Technical studies (such as pre-feasibility studies and definitive feasibility studies) are often used to demonstrate the technical and economic viability of a mineral deposit. Typically, a company will first undertake a "preliminary feasibility study" (or "pre-feasibility study") of a mineral deposit to

determine what portion of the mineral resources may be converted to ore reserves. Following the preliminary feasibility study, a company may undertake further technical and economic studies of the project (generally known as a "definitive feasibility study") to demonstrate that, at the time of reporting, the project is economically mineable. A "definitive feasibility study" is of a higher level of confidence than a pre-feasibility study, and the results of the study often serve as the basis for a final decision by the company to proceed with, or a financial institution to finance, the development of the project and a "bridging study" is used to provide higher project definition surrounding risk and cost between a definitive feasibility study and a final investment decision. Pre-feasibility studies, definitive feasibility studies and bridging studies include economic and financial analyses based on certain assumptions relating to extraction, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors, as well as any other relevant factors as determined by a qualified minerals industry professional (known as a "competent person"). Many factors are involved in the determination of the economic viability of a mineral deposit, including the achievement of satisfactory ore reserve estimates, the level of estimated metallurgical recoveries, water consumption and water supply, capital and operating cost estimates and the estimate of future metals prices. As a result, technical studies are subject to material uncertainties, in particular in projects in the exploration and correspondingly early phases, as in the case of Vulcan Group's Project. The information relating to resource estimates in this Prospectus is based on Vulcan Group's Bridging Study (and EOV Review) for Phase One and a competent person report ("**Competent Person Report**" or "**Independent Expert Report**") and is therefore subject to such uncertainties.

Vulcan Group's whole Project area geologically represents a combined exploration and development project since it includes a number of different project areas at different levels of maturity. In deep geothermal brine projects in the Upper Rhine Valley of Germany, exploration is typically conducted with seismic data acquisition and interpretation, with the first well drilled as the first production or re-injection well. Due to the unique nature of the deep geothermal brine-type deposit, exploration drilling has not been conducted within Vulcan Group's licence areas, with the exception of the core of the field in the Phase One development area, which contains operating production wells in Insheim (Vulcan Group's Insheim Plant) and previously operating production wells in Landau (the Landau geothermal plant ("**Landau Plant**") owned by geox GmbH in respect of which Vulcan Group has entered into an agreement to acquire, but is not completed as at the date of this Prospectus, and Vulcan Group's lithium resources have been estimated using 2D and 3D seismic data, historical hydrocarbon and geothermal wells with lithological information inside and outside Vulcan Group's licence areas, and lithium grades measured from proximate geothermal wells outside Vulcan Group's licence areas, with the exception of the Phase One core of the field at Insheim and Landau, where extensive sampling and measuring of lithium grades has been conducted. Estimates of the tonnes, grade and overall mineral content of the resources in Vulcan Group's wider project areas are not precise calculations, but are based on interpretation of samples from sparse brine sampling at on and off-property wells, with the exception of the Phase One core of the field at Insheim and Landau, where extensive sampling and measuring of lithium grades has been conducted. Accordingly, localised grade variability may exist, which could result in deviations from production expectations. More advanced data will only be available once the resources have been further developed by first production drilling of geothermal wells and gathering of additional data. Since the first wells are also used as production or re-injection wells because of their high capital cost, Vulcan Group has been relying on seismic data analysis and interpretations, and existing well data (for example from the operating Insheim and Landau production wells) for its Bridging Study for Phase One and plans to drill its first new development wells in parallel with its commercial development. Until Vulcan Group has drilled all of the development wells required for its Phase One commercial development and for future phases, there is a degree of uncertainty on the lithium grades in the brine, the heat, and the brine flow rate of Vulcan Group's planned operation, which could have an adverse effect on the commercial viability of Vulcan Group's proposed activities.

By their very nature, estimates of Vulcan Group's lithium resources and ore reserves are associated with a degree of uncertainty which may be imprecise and depend to some extent on assumptions and interpretations, which may prove to be inaccurate. In addition, such estimates are expressions of judgement based on knowledge, experience and industry practice. Estimates which were valid when originally calculated may alter significantly when new information or techniques become available. As further information becomes available through additional fieldwork and analysis, the estimates are likely to change. Also, there can be no assurance that the test work carried out so far is sufficient and further or more extensive test work may be required which may, in turn, result in further delays and drive up costs. Such and similar developments may result in alterations to development plans which may, in turn, adversely affect Vulcan Group's operations and financial

performance and the Company's Share price. In addition, if a project is developed, actual operating results may differ from those anticipated in technical studies.

Finally, there is a risk that licenses may be relinquished if Vulcan Group is not able to carry out planned work programs for whatever reason, which could negatively impact Vulcan Group's resources and reserves.

1.2.3 There is no guarantee that Vulcan Group will be able to obtain all required approvals, licences, permits and land for lithium and geothermal renewable energy production in time or at all.

Vulcan Group currently holds all exploration licences required to undertake its exploration programs, and a geothermal production licence at the Insheim Plant. Permitting for Phase One of the Project area is a carefully planned and iterative process through to project execution. However, many of the lithium and geothermal energy rights and interests held by Vulcan Group are subject to the need for ongoing or new governmental approvals, licences and permits as the project advances and the scope of Vulcan Group's operations changes. For example, Vulcan Group will need, in various locations, permits to conduct seismic exploration and drilling. The granting and renewal of such approvals, licences and permits are, as a practical matter, subject to the discretion of applicable government agencies or officials. Also, governmental approval processes and Vulcan Group's own stakeholder engagement procedures often allow for a form of participation of the general public which may consume substantial time and cost, and add an element of uncertainty to the process. If the Company pursues development of what it believes to be an economically viable lithium and geothermal energy deposit, it will, among other things, require various approvals, permits and licences before it will be able to produce minerals from the deposit, and will need to satisfy certain environmental approval processes (see section "1.2.4 Vulcan Group's projects may face opposition from relevant stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty."). The maintenance or issue of any such approvals must be in accordance with the laws of the relevant jurisdiction and, in particular, the relevant mining legislation. Conditions imposed by such legislation must also be complied with.

Additionally, the Bridging Study requires Vulcan Group to acquire or lease substantial portions of land to build wells or other facilities to implement Phase One of the Project. Land acquisition remains an ongoing process for Vulcan Group to execute its Project in accordance with the schedule.

No guarantee can be given that approvals, licences, or permits will be maintained or granted (at all or in a timely fashion), or, if they are maintained or granted, that Vulcan Group will be in a position to comply with all conditions that are imposed or that they will not be challenged by third parties. The approvals, licences, or permits may be subject to prior unregistered agreements or transfers or title may be affected by undetected defects or other claims. Similarly, Vulcan Group may be unable to acquire or lease the land required for the implementation of Phase One of the Project for the necessary time period, at acceptable conditions or at all. The materialisation of any of these risks could adversely affect Vulcan Group's operations and financial performance.

1.2.4 Vulcan Group's projects may face opposition from relevant stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty.

Geothermal renewable energy and mineral exploration, development and extraction businesses, such as that carried out by Vulcan Group, can face concerns and/or opposition from local residents, members of the local community, non-governmental organisations, environmental protection groups or other stakeholders, potentially during all phases of project implementation but particularly during construction and operation, regarding actual or potential breaches of regulatory conditions, health and safety risks, or environmental or other issues. Stakeholders may also take issue with, and oppose Vulcan Group's project or Vulcan Group more generally due to, the Company's "foreign" incorporation and its majority foreign ownership and control. Such stakeholders may choose to voice their concerns and opposition during the public consultation and participation process as part of the administrative procedures relating to the granting of approvals, licences and permits or, if unsuccessful, in court, each of which may result in substantial delays, additional costs, reputational risk and uncertainty as to the outcome of such procedures. Moreover, such stakeholders may decide to pursue their interests outside of formal channels by means of public protests, sit-ins or otherwise, in each case resulting in additional delays, costs, reputational risk and uncertainty. Drillings by geothermal energy businesses in connection with projects in the Upper Rhine Valley and areas in the proximity thereof have encountered, and have been discontinued as a result of, inter alia, local

opposition. Similarly, Vulcan Group's seismic exploration activities have also occasionally been, and continue to be, met with opposition, which prompted Vulcan Group to temporarily pause application processes, allocate additional time to engage with local stakeholders and apply other measures to address local stakeholder concerns. Each such risk, if it materialises, could result in the delayed commencement of operations or the temporary or permanent prevention or discontinuation of operations in their entirety and, thus, adversely affect Vulcan Group's business. Accordingly, the success of Vulcan Group's operations is in part dependent on the support of local and regional stakeholders including, in particular, local communities and civil society.

1.2.5 Vulcan Group has entered into binding lithium offtake agreements with various customers which rely upon Vulcan Group's ability to produce certain quantities of lithium chemicals to certain specifications within a certain timeframe. Should the counterparty of any such lithium offtake agreement terminate such agreement and/or claim damages as a result of Vulcan Group's failure to meet these or other obligations, Vulcan Group would be unable to realise the economic benefits of the relevant agreement, which could adversely affect Vulcan Group's operations and financial performance.

Provided Vulcan Group commences commercial production, a substantial majority of its future revenues are intended to be generated from the extraction and sale of lithium chemicals. The lithium chemicals are planned to be marketed and sold principally through binding agreements for the sale of battery grade LHM (referred to as lithium offtake agreements) concluded with various customers (in some instances, entered into well in advance of Vulcan Group's entering into the production phase). As of the date of this Prospectus, Vulcan Group has entered into binding lithium offtake agreements with Umicore NV ("**Umicore**"), Renault SAS ("**Renault**"), Stellantis Auto SAS ("**Stellantis**"), LG Energy Solution Ltd ("**LG Energy**") and Volkswagen AG ("**Volkswagen**") for and from Phase One (whereas the start of commercial delivery under the Umicore agreement is yet to be adjusted to align with the targeted start of commercial production and the lithium offtake agreement with Volkswagen is also yet to be amended to apply to a future phase of production beyond Phase One (with the timing yet to be defined)), corresponding to the entire expected quantity of the first five years of production from Phase One and the majority of the production in the second five years of production. Vulcan Group's ability to generate revenues from any such agreements is subject to certain conditions, risks and uncertainties, which could materially impact the economic value of these agreements to Vulcan Group or even result in their termination. For example, the scheduled commencement dates of commercial delivery under each of these lithium offtake agreements, the expected start of commercial lithium production and other key project milestones had to be delayed as a result of, inter alia, supply chain disruptions Vulcan Group experienced during 2022 as a result of the Russia-Ukraine Conflict and the COVID-19 pandemic. Moreover, commercial delivery under the lithium offtake agreements is subject to conditions including, inter alia, Vulcan Group's ability to secure project finance, to commence commercial production and to produce lithium chemicals in sufficient quantities and to the required specification in accordance with an agreed timetable. The lithium offtake agreements entered into by Vulcan Group generally contain termination rights in favour of the counterparty in the event that Vulcan Group fails to secure project finance, to commence commercial production or to produce the agreed-upon quantities of lithium chemicals to the required specification and/or in the timeframe set out therein; in addition, the relevant counterparty could seek damages for any losses incurred in any such scenario. There can be no assurance that Vulcan Group will be able to meet these conditions or that Vulcan Group will reach the production phase at all. Delays in achieving the required level of production in the applicable timeframe may occur in connection with obtaining necessary permits, failure to locate or identify lithium deposits or failure to achieve predicted grades in exploration and brine extraction (see section "1.2.1 Vulcan Group is still in the development stage and has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its Project, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses."). Should the counterparty to any lithium offtake agreement concluded with Vulcan Group decide to terminate, re-negotiate the terms of such lithium offtake agreement or seek damages as a result of any such delay or Vulcan Group's inability to produce the agreed-upon quantities of lithium chemicals at the required specification in the pre-agreed timeframe, Vulcan Group would be unable to realise the economic benefits of such agreement, would be required to offer the lithium chemicals to another third party on potentially worse terms and/or would, if a damage claim were successful, be required to pay damages, each of which could adversely affect Vulcan Group's operations and financial performance. Also, there can be no assurance that Vulcan Group will be able to enter into

new lithium offtake agreements at similar or more favourable terms with other counterparties or at all.

1.2.6 Vulcan Group may be unable to achieve the expected benefits from past acquisitions, partnerships and joint-ventures or successfully execute future acquisitions, partnerships and joint-ventures that it may pursue to execute its strategy and development plans.

Since its incorporation, the Company and certain of its subsidiaries have completed several acquisitions of businesses. The most material acquisition was the acquisition of Natürlich Insheim in December 2021, which owns and operates the Insheim Plant. Most recently, Vulcan Group acquired the geothermal renewable energy plant operator geox GmbH which acquisition has not yet completed as of the date of this Prospectus. Vulcan Group may also in the future analyse and ultimately execute potential opportunities regarding acquisitions of existing companies, businesses, assets or technologies. However, there can be no assurance that the Company will be able to discover suitable acquisition targets at reasonable prices or at all. Should Vulcan Group be successful in making an acquisition, it may have to incur substantial expenditure, in the form of cash, shares or otherwise, incur debt, take on loss-making business divisions or take on other types of expenses. In particular, any acquisitions may result in increased indebtedness, substantial commitment of management capacity and resources and, in cases in which the consideration is fully or partially paid in shares, a dilution of the Company's shareholders. Further, Vulcan Group might fail to achieve the capacity expansion, cost savings, synergies or other benefits that it expects to realise from any such acquisitions. There is no assurance that the implementation of any recent or future acquisitions will yield benefits to Vulcan Group at a level sufficient to justify the expenses incurred in completing such acquisitions. Any integration process following any such acquisition might be complicated by the loss of key personnel, negative changes in the course of ongoing business processes and relationships with customers and employees. As a result, any such integration process may require more time, expenses and management capacity and resources than expected. In addition, the Company may be unable to carry out sufficient due diligence and any failure by the Company to identify, or to correctly assess, all of the problems, issues, liabilities or other shortcomings or challenges of a target company, business or technology, including issues related to intellectual property, data protection, regulatory compliance, accounting practices or employee or customer issues, could harm Vulcan Group's business, and the Company could incur extraordinary or unexpected legal, regulatory, contractual, labour or other costs as a consequence of any such acquisition.

Similarly, Vulcan Group may also seek and engage in potential opportunities for partnerships and joint-ventures. However, there can be no assurance that the Company will be able to discover suitable partners or otherwise establish successful partnerships and joint ventures. Potential future partnerships and joint-ventures may not yield the desired results or otherwise function as intended by the parties. Among others, partners may have economic or other business interests or goals that are different to those of Vulcan Group and the interests of the parties may not be, or may over time cease to be, aligned; controversies may arise between the parties regarding matters of governance and control, ownership or use rights to intellectual property and other assets or other matters; joint decision-making arrangements or veto rights on the part of any partners could make the day-to-day operation of the partnership or joint-venture less efficient or more burdensome than expected and could lead to delays in, or changes to, projects; the Company's economic interest in its projects may be diluted; partners may experience insolvency or other liquidity issues (which could cause the partner to default on its obligations or cease trading); and the commercial results of the partnership or joint-venture may turn out to be less promising than expected. Any such controversy may turn into a serious dispute potentially resulting in legal proceedings, the loss of business opportunities or disruption to, or termination of, the relevant partnership or joint-venture and divert the Company's management's attention and other resources. Any of the foregoing could have a material adverse effect on Vulcan Group's business, assets, results of operations, financial condition and prospects.

1.2.7 Vulcan Group will be dependent on third-party suppliers and contractors for various services and products as well as on transportation channels and other infrastructure required for its business operations.

During development and construction and continuing once the Phase One of the Project advances to the stage of commercial production, Vulcan Group will rely on third-party suppliers and contractors for various goods and services including utilities, electricity for its well sites, LEP and CLP, chemicals, operation services, transportation and construction services in line with industry practice. Vulcan

Group may be unable to monitor the performance of its contractors and other third parties as directly and efficiently as it can its own employees. Therefore, Vulcan Group is exposed to the risk that its third-party service providers fail to perform their obligations, which may in turn adversely affect Vulcan Group's business operations. In addition, qualified contractors and other third parties may not always be readily available when needs for outsourcing arise. If Vulcan Group is unable to hire qualified contractors and other third parties, its ability to complete projects or other contracts could be impaired. If the amounts Vulcan Group is required to pay to contractors and other third parties exceed what has been estimated, Vulcan Group may suffer losses. Outsourcing also exposes Vulcan Group to risks associated with non-performance, delayed performance or sub-standard performance by contractors or other third parties. As a result, Vulcan Group may incur additional expenses due to delays or to higher costs.

Vulcan Group's production operations will be dependent on access to adequate transportation channels and other infrastructure. Vulcan Group will be reliant on readily available and functioning transportation, inter alia, for deliveries to the CLP planned to be constructed at the Höchst Chemical Park (*Industriepark Höchst*), located in Frankfurt am Main, and from the CLP to customers. There can be no assurance that the existing transportation networks will be sufficient to meet Vulcan Group's transportation requirements. Furthermore, any disruption to, or decrease in, the availability or capacity of the transportation networks, such as an earthquake, major rail or highway accidents, strikes, seasonal congestion during holidays or any significant rise in transportation costs, could materially and adversely affect Vulcan Group's ability to deliver its products to customers and have a material adverse effect on its overall processing and manufacturing business and results of operations.

Any of the above events could have a material adverse impact on Vulcan Group's operations, financial performance and reputation.

1.2.8 Vulcan Group's geothermal projects are subject to induced seismicity risks.

Vulcan Group is focused on developing a deep geothermal-lithium brine field in the Upper Rhine Valley of Germany and in France. While the geothermal industries in Germany and France have procedures in place for controlling seismicity to a generally acceptable threshold, some geothermal brine projects have been associated with seismicity events beyond the acceptable threshold in the past, which has resulted in projects being shut down or being scrutinised by the competent mining authorities. Should Vulcan Group's projects, once more advanced, cause or be associated with seismicity events, they could be scrutinised by the competent authorities which could issue all necessary orders to reduce resulting risks and to exclude such events going forward. Such orders could potentially include, amongst others, increased seismicity monitoring obligations, operational restrictions or (as preliminary measures or last resort) a partial or temporary, or even a complete, shut-down of the relevant well sites, depending on the specific circumstances. Furthermore, the operator of the facility is obliged to pay compensation for resulting damages and violations of permit provisions can be penalised as administrative offences or even criminal offences. In addition, any mitigation steps taken by Vulcan Group to reduce seismicity risk could have a commercial impact on Vulcan Group. The materialisation of any of the above risks could disrupt the operations of Vulcan Group and, accordingly, have a material adverse effect on Vulcan Group's operations and financial performance (see section "1.2.4 Vulcan Group's projects may face opposition from relevant stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty.").

1.2.9 Vulcan Group's geothermal projects are subject to climate change risks.

Whilst one of the primary purposes of the Project is to avoid carbon emissions in the lithium supply chain, there are a number of climate-related factors that may affect the operations and proposed activities of Vulcan Group. Climate change may cause certain physical and environmental risks that cannot always be reasonably predicted by the Company, including events such as increased severity of weather patterns and incidence of extreme weather events, as well as longer-term physical risks such as shifting climate patterns. In particular, higher temperatures prevailing over increasing periods of time, as a result of the anticipated global warming, may negatively impact the efficiency of the processes in geothermal plants used in the energy production business of Vulcan Group. The materialisation of any of these risks could have a material adverse effect on Vulcan Group's operations and financial performance.

1.2.10 Vulcan Group may lose its directors or other key personnel or may be unable to recruit or retain qualified personnel for key positions. Without such directors or key personnel Vulcan Group may not be able to successfully manage, develop and operate its business.

Vulcan Group has a strong management team across its different business sectors with longstanding industry experience, non-executive directors with extensive and relevant industry experience as well as a capable and experienced technical team across the fields of geothermal energy development, including geology and engineering, and lithium extraction (chemistry and chemical engineering). The Company believes that Vulcan Group's success greatly depends on the performance of its directors and its other key personnel, including engineers, scientists, consultants, managers and other staff, who are experts in the sector and markets in which it operates. In particular, to successfully manage, develop and operate its business, Vulcan Group depends upon, among other things, the services and the established personal networks of:

- Dr Francis Wedin, the Executive Chair of the Company and a geologist with a background in lithium exploration; and
- Mr Cris Moreno, the Managing Director and CEO of the Company, and a chemical engineer with a background in delivering major projects, including in the lithium chemicals, cathode, and LNG sectors.

Whilst Vulcan Group's strong environmental ethics and focus have proven to be an effective recruitment tool to date, there can be no assurance that Vulcan Group's efforts to retain and motivate its directors and key employees or attract and retain other highly qualified technical personnel will continue to be successful. Industry demand for highly qualified technical personnel, especially in the lithium sector, exceeds the number of personnel available, and the competition for attracting and retaining these employees is intense. Competition for qualified staff is particularly intense in Germany, where Vulcan Group employs approximately 350 employees (full-time equivalents) as of the date of this Prospectus, and salaries paid to such staff in Germany are relatively high compared to other jurisdictions. The loss of any directors or key employees, or failure to attract new qualified employees, including qualified technical personnel, could impair Vulcan Group's further development. In order to achieve its strategic goals, Vulcan Group is targeting a significant increase in the number of staff over the next three to five years as it is planned to transition to an execution and production company. If Vulcan Group is unable to attract personnel to meet these requirements, it may be unable to achieve its strategy in the timeframe contemplated.

1.2.11 Vulcan Group's operations involve the use of heavy machinery, gas and chemical substances. Any technical or human error could harm physical integrity, life or property and, as a result, could have a material adverse effect on Vulcan Group's business, results of operations, prospects and reputation.

Vulcan Group's Project incorporates many different engineering disciplines, and certain aspects (such as LHM production via electrolysis) of the project represent new applications of technologies. Vulcan Group's business includes large-scale construction, drilling operations, transport of goods and other use of heavy machinery as well as the handling of potentially hazardous chemical gas, substances and compounds. Whilst Vulcan Group has implemented a variety of health and safety measures to help prevent damage to individuals or property arising from Vulcan Group's construction, drilling and transport activities and use of heavy machinery or handling of chemicals, such activities are distinctly complex and inherently risky. Each of these activities bear the risk that, as a result of technical or human error or other external factors, the individuals involved in these activities incur injuries, other physical damage or even loss of life or that property is damaged or otherwise affected. Any such damage to life, health or property resulting from Vulcan Group's operations could have a material adverse effect on its business, results of operations, prospects and reputation.

1.2.12 Vulcan Group could incur substantial losses from damage not covered by, or exceeding the coverage limits of, its insurance policies.

While Vulcan Group is insured against fire, natural disasters, operational interruptions, enterprise accident and third-party liability, its insurance policies are subject to exclusions and limitations of liability both in amount and with respect to the insured events. As a result, Vulcan Group's facilities or its employees may suffer physical damage resulting in losses that may not be covered by

insurance, either fully or at all. In addition, there are certain types of losses, generally of a catastrophic nature or pandemic events, that may be uninsurable or are not economically insurable.

There can be no assurance that Vulcan Group's assessment that it is sufficiently insured in accordance with industry practice against contingencies is accurate. In addition, there can be no assurance that Vulcan Group will be able to maintain its current level and scope of coverage or obtain replacement insurance on acceptable terms or at all. Should an uninsured loss or a loss in excess of insured limits occur, Vulcan Group may lose capital invested or revenues or incur substantial costs which will not be recouped. Even where Vulcan Group has obtained sufficient insurance coverage, its insurance providers could become insolvent, requiring Vulcan Group to bear any liabilities and losses. If Vulcan Group suffers a loss or incurs a liability against which it is uninsured or insufficiently insured, this could adversely affect Vulcan Group's business, net assets, financial condition, cash flow, and results of operations.

1.2.13 Vulcan Group may fail to achieve its sustainability ambitions or fail to maintain current or obtain potential future ESG ratings and sustainability-related certifications, each of which could have a material adverse effect on its business, assets, results of operations, financial condition, prospects and reputation.

Vulcan Group has a clear goal and strategy built around implementing the Phase One of the Project as the world's first carbon neutral footprint integrated lithium hydroxide production project. Whilst Vulcan Group plans to use zero Scope 1 fossil fuels (i.e. direct Company-owned or -controlled fossil fuels used at the source) to power its process, the Company recognises that across any industrial plant development it is currently impossible to truly have zero greenhouse gas ("**GHG**") emissions, especially during construction. In addition, beyond Vulcan Group's ambition to maintain a carbon neutral position, Vulcan Group has determined and imposed on itself certain core values, referred to as "Vulcan Values", and other benchmark goals and requirements in the area of sustainability and environmental, social and governance ("**ESG**").

As the successful implementation of the Project is both a commercial goal of the Company as well as critical for Vulcan Group's ambition to implement the world's first carbon neutral integrated lithium hydroxide production project, any failure or significant delay by Vulcan Group to achieve these ambitions could have a material adverse effect on its business, assets, results of operations, financial condition, prospects and reputation. In particular, should Vulcan Group fail to implement the Project to maintain its carbon neutral position or to meet its sustainability goals and requirements more generally, each and all of which may occur as a result of factors outside of Vulcan Group's control, it may become the subject of adverse attention by investors, customers, environmental and climate activists, non-profits, the media or the public more generally. Moreover, Vulcan Group could face sustainability-related legal disputes brought by investors, customers, environmental and climate activists or other stakeholders regarding its sustainability claims and achievements, regardless of whether these are justified. For instance, cases on alleged problematic advertisements with claims of environmentally friendly services increased significantly in recent years, and courts and regulators generally pay close attention to advertising with sustainability claims to the public. Advertising the Project as "carbon neutral" bears the risk of being considered a problematic statement, in particular if the entire process, possibly including the construction phase, is not in fact carbon neutral and a court considers additional information on which parts of the project are emission-free or which measures (e.g., neutralisation or offsetting) are implemented to achieve carbon neutrality are not sufficiently clear. Should any of these scenarios materialize, this could have a material adverse effect on Vulcan Group's business, assets, results of operations, financial condition, prospects and reputation.

Moreover, Vulcan Group has received certain ratings and certifications in the area of ESG and sustainability more generally from third parties in the past, and Vulcan Group may obtain further ESG ratings and sustainability-related certifications from third parties in the future. For example, as of the date of this Prospectus, Vulcan Group holds an ESG risk rating from Sustainalytics GmbH ("**Sustainalytics**"), a certification as a carbon neutral organisation for 2022 by Climate Active and South Pole and has completed an environmental and social impact assessment ("**ESIA**") for Phase One of Vulcan Group's Project by ERM (updated as of 16 September 2024) and the first S&P Global "Dark Green" rating for a mining and metals company. ESG ratings and sustainability-related certifications may inform and contribute to defining the expectations of investors, customers and other stakeholders of Vulcan Group in the market. As they are issued by third parties not controlled by Vulcan Group, there is no assurance that an existing or potential future ESG rating or sustainability-related certification will remain constant for any given period of time or that Vulcan

Group's ESG rating or sustainability-related certification will not be downgraded or withdrawn entirely if, in the relevant third party's judgment, circumstances in the future so justify or warrant. Should Vulcan Group fail to maintain existing ESG ratings and sustainability-related certifications or to obtain potential future ratings and certifications, each of which may occur as a result of factors outside of Vulcan Group's control, investors', customers' and other stakeholders' expectations may not, or no longer, be met which may have a negative effect on the Company's reputation. Moreover, this could, directly or indirectly, affect Vulcan Group's business by, for example, making Vulcan Group less attractive for certain groups of investors. Certain investors may even be required or choose to sell their holdings in the Company due to their own ESG- or sustainability-related investment criteria, which could have a negative impact on the Company's share price and make Vulcan Group's access to capital markets more difficult. Also, should customers negatively perceive Vulcan Group's efforts in the ESG and sustainability space, as a result of the downgrade or withdrawal of an ESG rating or sustainability-related certification, negative media attention or for other reasons, this might reduce Vulcan Group's customer base and, as a result, its competitive position within the overall market.

Also, the methodologies underlying ESG ratings or sustainability-related certifications are determined by the relevant third-party issuers and are subject to change. Moreover, such methodologies are often complex and non-transparent. It can therefore not be guaranteed that the methodology used by any third-party issuer which has currently rated or certified, or will in the future rate or certify, Vulcan Group's ESG- or sustainability-related performance or ambitions will conform with the expectations or requirements of any particular group of investors (or their respective ESG- or sustainability-related investment criteria), customers or other stakeholders. It can also not be assured that any such methodology will comply with any present or future applicable standards, recommendations, criteria, laws, regulations, guidelines or listing rules. As a result, ESG ratings and sustainability-related certifications of Vulcan Group are not necessarily indicative of Vulcan Group's past, current or future commitment to, or performance in respect of, ESG- or sustainability-related topics and may have limited, if any, utility for investors in assessing Vulcan Group's past, current or future financial performance.

Any of the foregoing risks, if they materialize, could have a material adverse effect on Vulcan Group's business, assets, results of operations, financial condition and prospects.

1.2.14 Vulcan Group may fail to maintain the integrity of its IT systems and successfully protect them against potential cyber-attacks, security breaches or other instances of intentional or unintentional disruption.

Vulcan Group uses, collects and stores multiple types of data including personal data. The integrity, availability and reliability of such data may be subject to intentional or unintentional disruption. Given the increasing sophistication and scope of potential cyber-attacks, these attacks could result in significant security breaches that could compromise Vulcan Group's sensitive information and financial transactions or cause systems to be unavailable for a period of time. Vulcan Group's Information Technology team has implemented several risk mitigation processes to protect the Company and its stakeholders from the possibility of a cyber security breach.

However, Vulcan Group's preventive measures to reduce the risk of cyber incidents and to protect the IT environment may not be sufficient and Vulcan Group may experience intrusions, cyber attacks or other security breaches of its systems. Vulcan Group also relies on its employees to comply with IT security policies. Failure to maintain the confidentiality, integrity and availability of computer hardware, software and internet applications and related tools and functions could result in damage to Vulcan Group's reputation, data integrity and/or expose Vulcan Group to ransom payments, costs, fines or claims under data protection or other laws or contractual requirements.

1.3 Financing Risks and Financial Disclosure Risks

1.3.1 Significant funding will be required by Vulcan Group to support the further implementation of the Project. If Vulcan Group is unable to enter into the envisaged financing agreements or to comply with the terms of the existing financing arrangements or those financing agreements it intends to enter into with various lenders at the project level or to obtain additional financing as needed on acceptable terms or at all, it may need to abandon its development plans or reduce and/or change their scope which may, in turn, adversely affect Vulcan Group's operations.

As Vulcan Group does not currently generate significant revenue, significant external funding will be required to support further implementation of the Project. According to Vulcan Group's models and estimates total Phase One capital expenditure is expected to amount to approximately EUR 1,431 million. The Project will also incur financing costs of approximately EUR 270 million, additional contingency and standby facilities required by financiers, of approximately EUR 241 million, owner's costs of approximately EUR 180 million, and debt service reserve account (DSRA) and ramp up costs of approximately EUR 103 million. Moreover, the amount of capital required in future phases will be determined and refined as the Company advances the Project (see section "1.1.4 Vulcan Group's estimated development and operating costs are based on certain assumptions and no assurance can be given that Vulcan Group's cost estimates and the underlying assumptions to extract lithium chemicals from brine and renewable geothermal energy on commercially viable terms will be realised in practice."). In particular, as the Company has not completed a definitive feasibility study in relation to any subsequent phases, there remains significant uncertainty regarding the funding requirements beyond Phase One. The ability to develop the Project beyond Phase One will therefore depend on the future availability of further funding.

Vulcan Group intends to fund the planned investments to implement Phase One of the Project through a combination of debt financing at the project level as well as equity financing at the project and Company level.

With respect to debt financing at the project level, Vulcan Group has received a conditional commitment letter from a number of institutions (including Export Finance Australia and commercial banks) covering a debt financing amount of EUR 879 million. This commitment follows approval received from European Investment Bank's (EIB) Board to participate in the Project up to a EUR 500 million lending envelope (including targeting up to EUR 250 million direct lending). Vulcan Group is seeking additional approvals from Export Development Canada (EDC), Bpifrance AE, the Italian export credit agency (SACE) and other commercial banks to participate in the debt financing, to reach a target total debt package commitment of approximately EUR 1.5 to 1.6 billion (together, the "**Envisaged Debt Financing**" in the first half of 2025. With respect to equity financing, Vulcan Group targets gross proceeds of approximately EUR 625 – 725 million at the project and Company level (the "**Envisaged Equity Financing**") which shall also include the proceeds arising under this Equity Raising and certain public grants. Vulcan Group has received a range of non-binding offers from potential strategic partners at both the Company and project level for the Envisaged Equity Financing (together with the proceeds arising under this Equity Raising and certain public grants). However, both the Envisaged Debt Financing and the Envisaged Equity Financing are subject to finalisation, including alignment of key outstanding matters, board approval, definitive agreements, and satisfaction of conditions precedent. Should the parties not sign definitive agreements or should any of the conditions precedent not be met or not be met in good time, the financing parties may withdraw their offers and/or commitments and the Envisaged Debt Financing and the Envisaged Equity Financing may fall away.

Vulcan Group has entered into a credit facility with BNP Paribas in an amount of up to EUR 10 million to provide short term flexibility prior to completion of the equity and debt financing of Phase One of the Project (the "**BNP Paribas Facility**"). The BNP Paribas Facility is subject to certain terms including, inter alia, to maintain a certain net debt to EBITDA (defined as earnings before interest, taxes, depreciation and amortisation) ratio and a certain debt service coverage ratio. Should Vulcan Group be unable to comply with these terms, the BNP Paribas Facility may be terminated and any sums disbursed to Vulcan Group will have to be repaid.

In addition, the ability to develop subsequent phases of the Project beyond Phase One will depend on the availability of future financing arrangements.

Any additional equity financing (whether at the Company level or the project level) may be dilutive to the Company's shareholders, and debt financing, if available at acceptable terms or at all, may involve restrictive covenants or other limitations on financing and operating activities, including the future potential payment of dividends, and result in a material interest expense. If Vulcan Group is unable to obtain additional financing as needed on acceptable terms or at all, it may be required to abandon or reduce and/or change the scope of its development plans which may, in turn, adversely affect Vulcan Group's operations.

1.3.2 Vulcan Group has entered into a credit facility and plans to enter into significant debt financing arrangements in the short-term pursuant to which it will have to bear significant debt financing costs which may further increase in case of an increase in the interest rates. As it is envisaged to incur significant additional debt in the future, the Company expects that its debt financing costs will further increase in the future.

Historically, Vulcan Group's investments have been primarily financed by equity financings at the Company level and therefore only incurred limited financing costs for interest payments.

In September 2024, Vulcan Group entered into the BNP Paribas Facility. The BNP Paribas Facility is subject to a floating interest rate, which is tied to the Euro Interbank Offered Rate (also referred to as EURIBOR). Any increase of the EURIBOR will therefore also lead to a higher interest rate applicable to the amounts outstanding under the BNP Paribas Facility at a given time.

Moreover, in connection with the Envisaged Debt Financing, Vulcan Group will have to bear material interest expenses in the future. Similar to the BNP Paribas Facility, the interest rate applicable under the Envisaged Debt Financing is expected to be tied to the EURIBOR and therefore floating. Interest rates in many jurisdictions including Australia and Germany have been volatile within the last years. Potential further increases in interest rates could ultimately lead to a higher interest expense, causing overall financing costs to be significantly higher than currently anticipated. In the absence of any material revenue before the commencement of commercial production, these finance costs would generate additional losses before taxation for the foreseeable future. These losses may be compounded if the Company is forced to incur more debt than currently expected, for example, if the Company is required to finance cost overruns in connection with the Project.

1.3.3 Vulcan Group's existing debt financing arrangements contain and its future debt financing arrangements, once definitive, are expected to contain restrictive covenants, including change of control provisions, which may result in a repayment risk for the debt financings at the project level.

The BNP Paribas Facility contains several covenants, including a leverage covenant that requires Natürliche Insheim GmbH to maintain a certain net debt to EBITDA ratio and a certain debt service coverage ratio that requires Natürliche Insheim GmbH to maintain a certain ratio of cash flow, several mandatory prepayment events (including a mandatory prepayment event in case of a change of control event). The BNP Paribas Facility security package is also comprised of the following: (i) parent company guarantee by Vulcan Energy Resources Ltd; (ii) pledge over 100% of the shares in Natürliche Insheim GmbH; (iii) security assignments regarding certain receivables of VER GEO LIO GmbH and Natürliche Insheim GmbH; and (iv) pledge over Natürliche Insheim GmbH's accounts in Germany. In the event of a covenant breach, BNP Paribas may, in certain cases subject to the expiry of a grace period, terminate the BNP Paribas Facility and declare the outstanding loan together with interest accrued thereon due and payable.

Similarly, Vulcan Group's Envisaged Debt Financing arrangements at the project level, once definitive, are expected to contain several covenants. These covenants will include (a) that the Vulcan Group maintains a certain debt service coverage ratio (both historical and projected) and a certain loan life coverage ratio, (b) that the ratio of lithium carbonate reserves of the project compared to the initial reserves determined at financial close does not drop below a certain level, and (c) a change of control provision that requires the consent of the financing banks, inter alia, if the Company no longer maintains a minimum shareholding interest in Vulcan Group obligors and shareholders in the borrower under the Envisaged Debt Financing Arrangements. In the event of a covenant breach, the financing banks may terminate the Envisaged Debt Financing arrangements and declare the outstanding loans together with interest accrued thereon due and payable within a short period of time. The security package in respect of the Envisaged Debt Financing is intended to be a customary all assets security package, including the shares pledged over the entities holding the project assets.

The occurrence of any one or more of the foregoing events could adversely affect Vulcan Group's business, net assets, financial condition, cash flow, and results of operations.

1.3.4 Vulcan Group is exposed to foreign currency exchange risks.

Until 30 June 2021, Vulcan Group's presentational currency in its financial statements were in Australian dollars. Therefore, Vulcan Group has had a significant translational exchange rate risk as a result of its presentational currency being Australian dollars while a material part of its business is carried out in currencies other than Australian dollar, in particular in euro as the material assets of Vulcan Group are located in Germany. Since the change of its presentational currency to euro, the translational exchange rate risk mainly relates to cash held by Vulcan Group in Australian dollars.

Vulcan Group expects that LHM sales will be principally to European customers and denominated in EUR, although Vulcan Group's existing lithium offtake agreements are not exclusively with European customers and it is possible that in the future Vulcan Group may export a portion of its LHM outside of Europe, in which case the associated revenues may be denominated in other currencies, principally the US dollar. Vulcan Group's costs have to date primarily been incurred in a combination of Australian dollars and euros, whereas the share of the costs in euros has significantly risen over the years as the Project further ramps up towards construction and production.

In addition to the translational impact of exchange rate fluctuations, Vulcan Group is exposed to transactional exchange rate risk, in particular as certain materials will need to be imported from outside the Eurozone, with costs in currencies other than euro.

Moreover, pricing under the lithium offtake agreements concluded by Vulcan Group is a mix of fixed price and indexation based on market prices calculated by reference to certain indices. The indices commonly used are PRA contract-based indices as provided by, for example, BMI or Fastmarkets. These indices are currently quoted in US dollars, exposing Vulcan Group to a transactional exchange rate risk. While Vulcan Group expects that by the time it commences commercial production indices quotes in euro may become available for the European market, there can be no assurance that this will be the case. Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

Additionally, as the Company may receive the proceeds from the Institutional Offer in a combination of Australian dollars and euro, the Company will be subject to exchange rate risk if and when it converts Australian dollar proceeds into euro (or vice versa).

1.4 Regulatory Risks

1.4.1 Vulcan Group's risk management or compliance systems may not have been, or may not be, sufficient to adequately prevent or detect legal, tax and operational risks.

Vulcan Group's business is subject to various laws and regulations relating to, among other things, compliance with capital markets, environmental, mining, energy, antitrust, data protection, employment and tax laws and regulations. While Vulcan Group is not aware of any material breaches of applicable laws and regulations, it can neither guarantee that it has always been in full compliance with such laws and regulations in the past in the jurisdictions in which it operates, nor that it will be able to fully comply with them in the future. Vulcan Group is reliant on the compliance of its directors and employees with applicable laws and compliance policies implemented by Vulcan Group and there can be no assurance that directors or employees of Vulcan Group or third parties acting on Vulcan Group's behalf, have not engaged in or will not engage in criminal, unlawful or unethical behaviour. Existing risk management and internal compliance procedures and controls may not be sufficient to prevent or detect inadequate practices, fraud or violations of law by its directors, its employees or third parties acting on its behalf. The laws and regulations in the areas and jurisdictions in which Vulcan Group currently operates or may operate in the future are evolving. Consequently, such laws and regulations may change and sometimes may conflict with each other, making it more difficult to observe and comply with them. Moreover, as a result of its dual listing in Australia and Germany, the Company is subject to additional requirements which require it to maintain robust compliance procedures and controls. Maintaining, revising or enhancing risk management and internal compliance procedures and controls to accommodate overlapping, conflicting, changed or new laws and regulations require, and may going forward continue to require, the Company to incur significant cost and take significant management time, and there can be no assurance that the procedures and controls will adequately protect the Company from legal and operational risks.

In addition, effective internal controls are necessary for Vulcan Group to provide accurate and reliable financial reports. However, an internal control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the internal control system are met. Accordingly, there can be no assurance that all issues will be detected and Vulcan Group cannot be certain that it will be successful in maintaining adequate internal control over its financial reporting and financial processes. Furthermore, Vulcan Group is required to comply with stringent, overlapping and at times conflicting obligations in connection with the dual listing in Australia and in Germany. As Vulcan Group continues to grow its business, its internal controls will need to become more complex and it will require more resources to ensure its internal controls remain effective. Additionally, the existence of any material weakness or significant deficiencies could require management to devote significant time and incur significant expense to remediate any such material weaknesses or significant deficiencies and management may not be able to remediate any such material weaknesses or significant deficiencies in a timely manner. If Vulcan Group's internal controls are insufficient to prevent errors in Vulcan Group's financial statements, it would be required to restate its financial statements, causing it to fail to meet its reporting obligations and potentially causing shareholders to lose confidence in its reported financial information, all of which could have an adverse effect on the price of the Shares as well as Vulcan Group's reputation, business, net assets, financial condition, cash flow, and results of operations. This could also cause the price of the Shares to fall, in which case investors could lose some or all of their investment.

Inadequate risk management or compliance measures may cause irregularities that could lead to, among other things, losses or delays in the development of Vulcan Group's business, or to official investigations or third-party claims against Vulcan Group, which in turn could have significant financial, reputational and other consequences. These consequences could include significant penalties, damage claims and sanctions, including sanctions imposed by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*) ("**BaFin**") in connection with potential breaches of post-listing obligations, as well as considerable damage to Vulcan Group's reputation. If Vulcan Group suffered any of these consequences, it could have an adverse effect on its business, net assets, financial condition, cash flow, and results of operations.

1.4.2 Vulcan Group is subject to laws and regulations in a number of jurisdictions which may impose costs and affect Vulcan Group's business or results, and non-compliance with existing laws and regulations, in particular environmental laws or foreign investment laws, or changes in any such laws and regulations could result in Vulcan Group incurring costs in order to take additional steps to ensure future compliance.

As a group operating in more than one jurisdiction, Vulcan Group is subject to Australian, European Union, German, French and other national and local laws, regulations and ordinances. Vulcan Group must observe a large number of different regulatory requirements. For its operations Vulcan Group is required to obtain and hold various permits. The laws and regulations that Vulcan Group is subject to change frequently, evolve constantly and may become more stringent. Vulcan Group may be required to incur significant costs and devote significant management time to adapting its exploration or production processes and operating policies to changes in applicable laws, and regulations and there can be no assurance that its efforts will ensure it is in compliance with such laws and regulations. If Vulcan Group does not comply with existing, changed or new laws and regulations, it may be required to take remedial actions that could be costly and time consuming, and it may also be subject to fines, administrative penalties, claims for damages and, potentially, criminal charges.

Whilst Vulcan Group's main goal is to develop commercial lithium production with proven environmental credentials, as with most lithium extraction projects, renewable energy projects and brine extraction operations, Vulcan Group's activities are expected to have some impact on the environment. Many of the activities and operations of Vulcan Group are environmentally sensitive and cannot be carried out without prior approval from all relevant authorities and compliance with all relevant laws and regulations. Violations of environmental laws and regulations may lead to significant sanctions including the shutdown of affected facilities and administrative fines and could also result in payment of damages to affected parties. Environmental legislation is evolving in a manner that may require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects, and a heightened degree of responsibility for renewable energy, brine and mineral extraction companies and their directors and employees. For example, the European Chemicals Agency ("**ECHA**") has put forward a proposal to re-classify lithium as a category 1A chemical, on a similar level as cobalt, which, if

adopted by the EU Commission as proposed, could increase regulatory requirements around controlling, processing, packaging and storage of lithium. Additionally, the re-classification could stigmatise lithium resulting in damage to Vulcan Group's reputation and negatively affecting acceptance of lithium-related projects. As Vulcan Group is attempting a distinct process of extracting lithium from geothermal brine with carbon neutral footprint, of which there are, in Vulcan Group's view, no comparable operating commercial precedents in Germany, there may be unknowns with regard to the permitting process, duration with authorities and related costs for the Company. In addition, authorities in Denmark, Germany, the Netherlands, Norway and Sweden have recently submitted to ECHA a proposal for the restriction of per- and polyfluoroalkyl substances aimed at reducing such substances' emissions into the environment which was subject to public consultation until September 2023. If adopted as proposed, it could result in the phasing out of the use of polytetrafluoroethylene polymer, or PTFE membranes which could lead to delays or cost increases in the Company's operations, the length and financial cost of which would depend on the availability of alternatives at the time.

Moreover, the disposal of mineral production and process waste and brine re-injection are under constant legislative scrutiny and regulation. There is a risk that environmental laws and regulations become more onerous making Vulcan Group's operations more expensive. Such increase of applicable regulatory requirements could result in additional cost for Vulcan Group to ensure compliance with such laws including, among others, payment of a royalty to governments, costs for legal advice or remediation measures, if required. Moreover, approvals are required for land clearing and for ground disturbing activities. Delays in obtaining such approvals can result in the delay to anticipated exploration programmes or brine production activities. Also, extractive businesses, such as the business carried out by Vulcan Group, often face concerns or opposition from relevant stakeholders regarding actual or potential breaches of conditions, risks to human health or the environment or other issues which are voiced in public participation processes or otherwise (see section "1.2.4 Vulcan Group's projects may face opposition from relevant stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty.") and may consume substantial time and cost and cause reputational risk and uncertainty.

Since no commercial lithium production currently exists in the state of Rhineland-Palatinate in Germany, it is currently not yet decided, whether Vulcan Group will be exempt from royalty payments to the state for its lithium extraction. Vulcan Group has applied for an exemption for lithium, but a decision has not yet been made. Geothermal production, the other part of Vulcan's business, has been exempted from a production royalty. Based on this precedent and for similar reasons under German mining law, Vulcan Group expects lithium production to be exempted from royalties. If the exemption is not given in time, it is possible that certain elements of the envisaged debt financing package would need to be adjusted which could also mean that a higher equity financing portion would be required.

In addition, as the Company is an Australian company and its operating subsidiaries and significant assets are based in Germany and France, Vulcan Group's assets are subject to risks with regard to their extraterritoriality such as changes in laws, practices and policies in the relevant jurisdictions, including laws that deal with overseas investors. In particular, changes to investment policies and legislation or a shift in political attitude may adversely affect Vulcan Group's operations and profitability. In particular, while there are currently no restrictions on the foreign ownership of lithium extraction companies in Germany and France, there can be no assurance that the requirements of the various governments in respect of foreign ownership and control of mining companies will not change. It is not possible for Vulcan Group to accurately predict such developments or changes in laws or policy or to what extent any such developments or changes may have a material adverse effect on Vulcan Group's operations.

The occurrence of any of these risks could adversely affect Vulcan Group's business, net assets, financial condition, cash flow, results of operations and reputation.

1.5 Legal and Tax Risks

1.5.1 Vulcan Group is exposed to risks from potential future litigation and other legal and regulatory actions and risks, and could incur significant liabilities and substantial legal fees.

Vulcan Group's business activities entail many novel features and are subject to various complex laws and regulations (see section "1.4.1 Vulcan Group's risk management or compliance systems may not have been, or may not be, sufficient to adequately prevent or detect legal, tax and

operational risks."), and are subject to business relationship with a large variety of counterparties. Therefore, Vulcan Group is subject to a higher risk from potential future litigation and other legal and regulatory actions as compared to issuers active in a more mature business environment. Whilst Vulcan Group is currently not exposed to ongoing litigation except for one labour law case which the Company does not consider to be material, Vulcan Group may become a party to legal disputes, administrative proceedings and government investigations. Such legal disputes, proceedings and investigations may, in particular, arise from its relationships with its contractual counterparties, end-customers and public authorities and could allege, among other things, breaches of contract, tort or the failure to comply with applicable laws and regulations. There may also be investigations by governmental authorities into circumstances of which Vulcan Group is not currently aware or which may arise in the future, including possible regulatory and environmental complaints, licencing challenges or criminal proceedings.

If Vulcan Group were to be found liable under any such claims, lawsuits or investigations it might be required to pay damages or fines and to take, or refrain from taking, certain actions and it could incur substantial costs and divert substantial amounts of management's time in dealing with them, even if they are unsuccessful, any of which could adversely affect its business, net assets, financial condition, cash flow, and results of operations.

1.5.2 Vulcan Group might be unable to adequately protect its intellectual property rights.

Vulcan Group believes its know-how and proprietary technology is critical to its success. It has sought protection of its proprietary technology through obtaining a German utility model registration and has filed European patent and Patent Cooperation Treaty ("**PCT**") (international) applications as well as applied for related national/regional patents in Europe, Australia, Canada, Chile, China, Japan, Korea and the US. Vulcan Group also relies on trade secret protection through non-disclosure agreements and other methods to protect its proprietary rights. Vulcan Group has also filed various trademark applications for its brands in Europe, the United Kingdom, New Zealand, Australia, the US, Canada and Japan. Vulcan Group is subject to a number of risks in adequately protecting its intellectual property, including that:

- Vulcan Group might not be able to obtain and maintain effective intellectual property protection, e.g. where its patent or trade mark applications fail;
- Vulcan Group may be required to expend significant resources (including financial, managerial and operational resources) to monitor and protect its intellectual property rights;
- any of Vulcan Group's intellectual property rights could be challenged or invalidated through administrative processes or litigation;
- Vulcan Group may not discover any infringement or violation of its intellectual property rights by a third party, or the extent of any such infringement or other violation, or, to the extent discovered, may not be successful in any claims or litigation against that third party; and
- Vulcan Group's competitors may independently develop or otherwise acquire equivalent or superior technology or intellectual property rights.

Vulcan Group may not be successful in maintaining the confidentiality or legal protection of its know-how and trade secrets. Employing adequate protection measures to protect confidentiality is a requirement for legal protection as trade secrets in some jurisdictions.

In addition, Vulcan Group may inadvertently infringe the intellectual property rights of third parties. The realisation of any such risks, alone or in combination, could have a material adverse effect on Vulcan Group's operations or financial performance.

1.5.3 Vulcan Group is currently subject to the tax laws and regulations of Australia and Germany. Its tax burden may increase as a consequence of current or future tax assessments or court proceedings in connection with changes in domestic or foreign tax laws and double taxation treaties or changes in the application or interpretation thereof. The Company's tax burden may also increase should it be considered tax resident of Germany or any other jurisdiction.

Vulcan Group is currently subject to the tax laws and regulations of Australia and Germany. Vulcan Group's tax liability depends on various aspects of tax laws and regulations including Australian and German domestic tax laws and regulations and double taxation treaties concluded, in particular, between Australia and Germany. Due to Vulcan Group's international business activities, Vulcan Group is constantly exposed to risks arising from the application of international tax concepts used for the purpose of allocating taxing rights between countries, for example the concepts of tax residency or permanent establishment as used, inter alia, in double taxation treaties. Amendments to tax laws and double taxation treaties may have a retroactive effect, and their application or interpretation by tax authorities or courts is subject to change and may not be anticipated by Vulcan Group. Furthermore, tax authorities occasionally limit court decisions to their specific facts by way of non-application decrees which results in additional uncertainties regarding the interpretation of tax law and regulations.

Vulcan Group is subject to regular tax audits in the jurisdictions in which it conducts its operations. As the result of an audit, Vulcan Group may incur additional tax payments as well as penalties and late payment charges resulting from the corresponding tax assessments.

The Company is currently considered a tax resident of Australia for domestic tax law purposes. If the Company's central administration or place of effective management were considered not to be located where its registered office is situated, the Company could be regarded as being a tax resident of another jurisdiction. The tax authorities may challenge the Company's central administration or place of effective management both for previous years or in the future. In addition, business needs and the structure of Vulcan Group may in the near term evolve such that the Company becomes tax resident of another jurisdiction. If the tax authorities decide to challenge the Company's central administration or place of effective management or determine that the Company is or has become tax resident of another jurisdiction, there could be unanticipated adverse tax consequences for the Company, but also for the Company's shareholders, possibly on a retroactive basis.

The materialisation of any of these risks could have a material adverse effect on its business, net assets, financial condition, cash flow, and results of operations.

1.5.4 The Company is incorporated in Australia and therefore the shareholders in the Company may be affected by the Australian tax regime which may also change from time to time.

The taxation of income from any future dividend payments, if any, as well as other income, for instance, from the sale of the Shares, may vary depending on the tax residence of the shareholder, as well as the existence and provisions of double tax treaties between a shareholder's country of residence and Australia. Tax provisions applying to particular shareholders may be unfavourable and/or may change in the future, in a way which has an adverse effect on the tax treatment of a shareholder's holding of the Shares.

1.6 Risks related to the Shares, the Admission to Trading and the Equity Raising

1.6.1 Future capital increases, such as the envisaged offering of the Additional New Shares, could lead to a substantial dilution of shareholders' interests in the Company and their voting rights and may adversely affect the market price of the Shares.

The Company may in the future seek to raise additional capital through the issuance of additional Shares, such as the envisaged offering of the Additional New Shares, or other securities with conversion rights (for example, options, performance rights, convertible bonds and other convertible securities) or to implement existing or future stock option or employee incentive plans. The Company may also issue Shares or other securities as consideration for certain acquisitions or investments from time to time. An issuance of additional Shares or securities with a right to convert into equity,

or the exercise of a stock option or employee incentive right could potentially affect the market price of Shares.

If such offerings of Shares or other securities with conversion rights, including the envisaged offering of the Additional New Shares, are made (other than in respect of any pro rata offer to the Company's existing shareholders), these offerings would dilute the economic and voting rights of the Company's existing shareholders.

Because the timing and nature of any future offering would depend on market conditions at the time of the future offering, the Company cannot predict or estimate the amount, timing or nature of any future offering. Investors in the Company bear the risk that such future offerings could reduce the market price of Shares, in which case investors could lose some or all of their investment, and/or dilute their shareholdings.

While the Company will be subject to the constraints of the ASX Listing Rules regarding the percentage of its capital that it is able to issue in any 12-month period (other than with shareholder approval or where exceptions apply), existing shareholders may still be diluted as a result of such issues of Shares and fundraisings depending on how they are structured.

1.6.2 The market price and trading volume of the Shares could fluctuate considerably, including as between the ASX and the FSE, which may result in substantial losses for investors. Differences in market price, trading volume, settlement and clearing systems, trading currencies and transaction costs between the ASX and the FSE may hinder the transferability of the Shares between the ASX and the FSE.

As the Shares of the Company are dual listed in Australia and Germany, the trading volume and price of the Shares may fluctuate significantly, including as between the ASX Limited ("**ASX**") and the regulated market (*Prime Standard*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) ("**FSE**"). Securities markets in general, particularly shares of issuers with a high risk profile (as is the case in respect of Vulcan Group), have been volatile in the past. The price of the Shares quoted on the ASX or on the regulated market (*Prime Standard*) of the FSE on the date of the Prospectus may therefore be subject to significant future fluctuation.

Among other factors, negative reports regarding the Company or the Shares issued by short sellers (so-called "short seller attacks") or other market participants could negatively and significantly impact the price of the Shares or result in large fluctuations in the price or trading volume of the Shares.

Further factors that could negatively affect the price of the Shares or result in fluctuations in the price or trading volume of the Shares include (but are not limited to):

- general (geo-)political and macro-economic trends and developments such as armed conflicts, trade wars, inflationary trends, increases of interest rates and other central bank measures;
- fluctuations in lithium prices;
- changes in Vulcan Group's implementation of strategy and failure to implement its exploration and production goals within the envisaged timeframe;
- increases in the Company's financing costs;
- changes in the Company's actual or projected results of operations or those of its competitors;
- changes in earnings projections or failure to meet investors' and analysts' earnings expectations;
- announcements by the Company to the market;
- investors' evaluations of the success and effects of the strategy described in this Prospectus;

- large purchases or sales of Shares of the Company; and
- any of the risk factors referred to in this Prospectus occurring.

Many of these factors are outside of the Company's control. Additionally, general fluctuations in share prices, particularly prices of shares of companies in the lithium and renewable energy sector, could affect the price of the Company's shares, even where there may not necessarily be a reason for this in the Company's business or performance.

In addition, as a result of the dual listing of the Company's Shares on the ASX and the FSE, the trading volume and price of the Shares may at any time be different on either of the two exchanges. The Shares are quoted and traded in Australian Dollars on the ASX and are quoted and traded in euro on the regulated market (*Regulierter Markt*) of the FSE. Therefore, the price of the Shares on those exchanges may also differ due to exchange rate fluctuations. The Shares traded on the ASX are settled and cleared in A\$ through to the settlement facility known as the 'Clearing House Electronic Sub-register System' ("**CHESS**") operated by ASX Settlement Pty Limited (ABN 49 008 504 532), of 16-20 Bridge Street, Sydney, New South Wales 2000, Australia ("**ASX Settlement**") in accordance with the settlement operating rules of ASX Settlement. The shares traded on the regulated market (*Regulierter Markt*) of the FSE are settled and cleared in euro within the Clearstream system. Differences that occur in settlement and clearing systems, trading currencies, transaction costs and other factors may hinder the transferability of the Shares between the ASX and the FSE.

Any or all of these factors could result in material fluctuations in the price of Shares, which could lead to investors getting back less than they invested or a total loss of their investment. The Company does not have a fixed winding-up date and therefore, unless shareholders vote to wind up the Company, shareholders will only be able to realise their investment through the sale or transfer of their Shares.

1.6.3 The Underwriters may terminate the Underwriting Agreement (in accordance with its terms) before the allotment of the New Shares under the Institutional Offer and the Company may therefore not be able to issue any or all of the New Shares pursuant to the Institutional Offer and, accordingly, will not be able to raise the corresponding funds.

The two international investment banks advising the Company on the Equity Raising (together the "**Underwriters**") may exercise their termination right under the underwriting agreement concluded with the Company (the "**Underwriting Agreement**") if certain conditions of the Underwriting Agreement fail to be satisfied or if certain events occur, entitling the Underwriters to terminate the Underwriting Agreement prior to the allotment of the Underwritten Portion of New Shares under the Institutional Offer. It is possible, therefore, that the Underwriting Agreement could be terminated before completion of the Institutional Offer. If the Underwriting Agreement is terminated prior to the completion of the Institutional Offer, the Institutional Offer will not proceed and the issuance of the New Shares may not be completed. Should this situation materialize, the Company may need to consider alternative funding options, including subsequent equity raisings or debt funding (see section "*1.3.1 Significant funding will be required by Vulcan Group to support the further implementation of the Project. If Vulcan Group is unable to enter into the envisaged financing agreements or to comply with the terms of the existing financing arrangements or those financing agreements it intends to enter into with various lenders at the project level or to obtain additional financing as needed on acceptable terms or at all, it may need to abandon its development plans or reduce and/or change their scope which may, in turn, adversely affect Vulcan Group's operations.*"). There can be no assurance that such other funding options will be able to be obtained on acceptable terms, in a timely manner or at all. Any inability to obtain such funding may adversely affect the business and financial condition of the Company. In addition, if the Underwriting Agreement is terminated prior to the allotment of the Underwritten Portion of the New Shares under the Institutional Offer, certain transaction overhead costs in relation to the Institutional Offer, such as legal and advisory costs, will still be payable by the Company notwithstanding that it will not receive the full funds from the Institutional Offer.

1.6.4 The Company faces additional administrative requirements from its dual listing on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) and on the ASX which need to be aligned with each other.

Since the admission of the Company's Shares to trading on the regulated market (*Regulierter Markt*) of the FSE and, simultaneously, to the sub-segment thereof with additional post-admission obligations (Prime Standard) in February 2022, the Company is subject to both the German legal requirements for public companies listed on the Prime Standard and the Australian legal requirements for public companies listed on the securities exchange operated by ASX which are not consistent in all respects. As a result, at times, challenges arise for the Company in combining the listing requirements of both markets in a coherent manner. There can be no assurance that the Company's accounting, legal or other administrative functions will always be capable of responding to these overlapping and sometimes conflicting requirements without difficulties and inefficiencies or significant additional costs. Failure to comply with these requirements could expose the Company to delisting of its Shares on the regulated market (*Regulierter Markt*) of the FSE, significant fines, sanctions and other regulatory action and potentially civil litigation. This could also cause the price of the Shares to fall, in which case investors could lose some or all of their investment.

The members of the management team are required to devote a substantial amount of time to these requirements that they might otherwise devote to other aspects of managing the Company's operations, and these requirements also entail substantial time commitments and costs for the accounting and legal departments and other administrative functions.

1.6.5 Holders of the Shares, in particular holders located in certain jurisdictions including the United States, may not be able to participate in future equity offerings.

Shareholders may not be able to participate in potential future equity offerings if they do not have the funds necessary to subscribe for new securities. Also, securities laws of certain jurisdictions may restrict the Company's ability to allow participation by shareholders in future offerings. In particular, shareholders in the United States, including new shareholders resulting from the Institutional Offer, may not be entitled to participate in future offerings, unless either the Shares and any other securities that are offered and sold are registered under the United States Securities Act of 1933, as amended ("**US Securities Act**"), or the Shares and such other securities are offered pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the US Securities Act. The Company cannot assure prospective investors that it will file any such registration statements, or that any exemption from such overseas securities law requirements would be available to enable US or other shareholders to participate in future offerings or, if available, that the Company will utilise any such exemption, each of which would result in shareholders in restricted jurisdictions being unable to participate in any such future issue. To the extent that US or other holders of the Shares are not able to participate in future equity offerings, their proportional interests in the Company would be diluted. Open market purchases to counteract such dilution could be possible only on terms which are less favourable than those offered to other shareholders in connection with such an equity offering.

1.6.6 The Company is incorporated in Australia and, as a result, it may not be possible for shareholders to enforce civil liability provisions of the securities laws of other countries, including for example the United States, against the Company, its Directors or officers.

The Company is incorporated under the laws of Australia and most of its assets are located in Germany (and none of them in the United States). In addition, the members of the Company's board of directors (the "**Board of Directors**" and its members the "**Directors**") are residents of Australia, Germany and other countries (but none of the Directors is resident of the United States). As a result, it may not be possible for the holders of the Company's Shares to effect service of process upon its Directors or officers within the United States or to enforce against the Company or its Directors or officers in the United States court judgements based on the civil liability provisions of the securities laws of the United States. Similarly, shareholders located in other jurisdictions in which neither Company's assets are located nor Directors or officers are resident may not be able to effect service of process upon, or to enforce against, the Company or its Directors or officers in the relevant jurisdiction court judgements based on the civil liability provisions of the securities laws of such jurisdiction. Shareholders located in Germany may also find it difficult to effect service of process in Germany upon the Company or those Directors or officers of the Company who are resident of a

country other than Germany or to enforce in Germany court judgements based on the civil liability provisions of the German securities laws against the Company or such Directors or officers.

1.6.7 If securities analysts downgrade the Company, the Company's Shares or the Company's sector, the share price and trading volume could decline.

The trading market for Shares will be influenced by, among other things, the research and reports that industry or securities analysts publish about the Company, its business, its markets, and its competitors. If any of the analysts who cover the Company issues an adverse opinion regarding the Company, the price of the Shares could decline. The Share price could also be adversely affected by reports about the Company's markets or its competitors, even if the reports do not directly address the Company. If one or more of these analysts cease coverage of the Company or fail to publish reports on it regularly, the Company could lose visibility in the financial markets, which in turn could cause the share price and/or trading volume of Shares to decline, in which case investors could lose some or all of their investment.

1.6.8 Future sales by shareholders of the Company, in particular large shareholders, could depress the price of the Shares.

As of the date of this Prospectus, the largest five shareholders of the Company hold more than 30% of its share capital. There are no lock-up agreements that preclude these shareholders from selling, distributing, transferring or otherwise disposing of any Shares in connection with, or at the occasion of, the Institutional Offer or at another point in time. If these or other larger shareholders were to sell substantial amounts of their shareholdings on the public exchange, or if market participants were to become convinced that such sales might occur, this could have adverse effects on the market price of the Shares, in which case investors could lose some or all of their investment.

1.6.9 The Company may invest or spend the proceeds of the Institutional Offer in ways with which shareholders may not agree or in ways which may not yield a return or enhance the price of the shares.

The Company may decide to use the net proceeds the Company receives from the Institutional Offer differently from its intention as of the date of this Prospectus. The Company's Board will have ultimate discretion in the application of net proceeds, and shareholders will not have the opportunity, as part of their investment decision, to assess whether the proceeds are being used appropriately.

2. GENERAL INFORMATION

2.1 Responsibility for the content of this Prospectus

Vulcan Energy Resources Limited, whose registered office is at Unit 1, 11/1 Spring Street, Perth WA 6000, Australia, legal entity identifier ("**LEI**") 8945006OYFHQ9HE4XE54, ACN 624 223 132 (hereinafter the "**Company**" and together with its consolidated subsidiaries, "**Vulcan Group**") pursuant to section 8 of the German Securities Prospectus Act (*Wertpapierprospektgesetz*) in conjunction with Article 11 of Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC, as amended (the "**Prospectus Regulation**") and hereby confirms that, to the best of its knowledge, the information contained in this Prospectus is in accordance with the facts and that the Prospectus makes no omission likely to affect its import.

Ms Kim Mohler, P.Eng. (GLJ Ltd, 1920, 401 – 9th Avenue S.W. Calgary, Alberta, Canada) and Ms G. Gabriella Carrelli, M. Sc., P. Geo. (GGC Geo Consulting, PO Box 844, Bragg Creek, Alberta, Canada T0L 0K0) have given and have not withdrawn their written consent to the inclusion in this Prospectus of the Competent Person Report set out in an annex to this Prospectus and have authorised the contents of the Competent Person Report as part of this Prospectus for the purposes of item 1.3 of Annex 1 of Commission Delegated Regulation (EU) 2019/980 of 14 March 2019 and have given and have not withdrawn their written consent to the publication of this document with the inclusion herein of the references to their name. As a professional engineer and professional geoscientist within the Association of Professional Engineers, Geologists and Geophysicists of Alberta, respectively, each of Kim Mohler, P.Eng., and G. Gabriella Carrelli, M. Sc., P. Geo., possesses the professional qualifications required pursuant to the ESMA Update of the CESR Recommendations, 20 March 2013 | ESMA/2013/319 (margin number 133 i). a) i) (2)).

2.2 General disclaimers

If any claims are asserted before a court of law based on the information contained in this Prospectus, the investor appearing as plaintiff may have to bear the costs of translating this Prospectus prior to the commencement of the court proceedings pursuant to the national legislation of the member states of the European Economic Area (the "**EEA**").

The information contained in this Prospectus will not be supplemented subsequent to the date hereof, except for any significant new factor, material mistake or material inaccuracy relating to the information included in this Prospectus that may affect the assessment of the shares and that arises or is noted between the time when this Prospectus is approved and the time when trading of the all of the New Shares on the regulated market (*Regulierter Markt*) of the FSE and, simultaneously, on the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) commences, which will be disclosed in a supplement to this Prospectus pursuant to article 23 of the Prospectus Regulation without undue delay. The obligation to supplement the Prospectus pursuant to article 23 of the Prospectus Regulation will no longer apply following the expiration of the validity of this Prospectus at the end of the first day of trading in all of the New Shares on the regulated market (*Regulierter Markt*) of the FSE, currently expected to occur on 19 December 2024

This Prospectus is not an offer, invitation, solicitation or other recommendation with respect to the subscription for, purchase or sale of any securities in Vulcan Group (including the New Shares) in any jurisdiction. This Prospectus has been prepared for the purposes set out in section "2.4 Purpose of this Prospectus" only and does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (Cth) or any other offering document under Australian law or any other law, other than a listing prospectus for German regulatory purposes.

The Prospectus has been prepared for publication in Germany, and the distribution of this Prospectus (including any electronic copy of this Prospectus) outside of Germany may be restricted by law. Persons who come into possession of this Prospectus should observe any such restrictions, as any non-compliance could contravene applicable securities laws.

The Institutional Offer is exclusively addressed to qualified investors and fewer than 150 non-qualified investors in any member state of the EEA, including in Germany, or the United Kingdom, and to qualified and non-qualified investors in Australia, New Zealand and certain other jurisdictions. The New Shares have not been and will not be registered under the US Securities Act, or the securities laws of any state or other jurisdiction of the United States of America ("**United States**") and may not be offered, sold or otherwise transferred within the United States, except pursuant to

an exemption from, or in a transaction not subject to, the registration requirements of the US Securities Act and in compliance with any applicable securities laws of any state or other jurisdiction in the United States. In the United States, the New Shares will be offered and sold only to "qualified institutional buyers" as defined in Rule 144A under the US Securities Act pursuant to an exemption from the registration requirements of the US Securities Act. The New Shares offered or sold outside the United States will only be offered or sold in offshore transactions as defined in, and in reliance on, Regulation S under the US Securities Act.

This Prospectus, and the information provided in it, does not constitute, and is not intended to constitute, financial product or investment advice, or a recommendation to acquire New Shares, nor does it constitute, and is not intended to constitute, accounting, legal or tax advice. This Prospectus does not, and will not, form any part of any contract for the acquisition of New Shares. This Prospectus has been prepared without taking into account the objectives, financial or tax situation or particular needs of any individual. Before making an investment decision (including any investment in New Shares or Vulcan Group generally), prospective investors should consider the appropriateness of the information having regard to their own objectives, financial and tax situation and needs, and seek professional advice from their legal, financial, taxation or other independent adviser (having regard to the requirements of all relevant jurisdictions).

2.3 Approval of the Prospectus

This Prospectus has been approved by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* – "**BaFin**"), Marie-Curie-Straße 24-28, 60439 Frankfurt am Main, Germany, tel.: +49 228 4108 0, www.bafin.de, as the competent authority under the Prospectus Regulation, on 17 December 2024. BaFin only approves this Prospectus as meeting the standards for completeness, comprehensibility and consistency imposed by the Prospectus Regulation. Such approval should not be considered as an endorsement of the Company or of the quality of the Shares that are the subject of this Prospectus. Investors should make their own assessment as to the suitability of investing in the Shares.

This document is not a prospectus, product disclosure statement or other disclosure or offer document under the Corporations Act 2001 (Cth) or any other Australian laws, and will not be lodged with the Australian Securities and Investments Commission or any other financial service regulator in Australia.

2.4 Purpose of this Prospectus

This Prospectus relates to the admission to trading on the regulated market (*Regulierter Markt*) of the FSE with simultaneous admission to the sub-segment of the regulated market (*Regulierter Markt*) with additional post-admission obligations (Prime Standard) (the "**Admission to Trading**") of 26,339,245 New Shares. The Company, together with two international investment banks (together the "**Underwriters**"), have offered and placed the New Shares via a fully underwritten institutional placement in the amount of 20,737,004 New Shares (the "**Underwritten Portion of New Shares**"), and a concurrent placement to strategic investors on a firm commitment basis in the amount of 5,602,241 New Shares (the "**Direct Investor Portion of New Shares**"). The New Shares are expected to be issued on 18 December 2024 and are expected to be admitted to trading on the FSE on or about 19 December 2024 without a public offering in Germany. The New Shares are expected to be simultaneously admitted to trading on the ASX.

The Underwritten Portion of the New Shares were fully underwritten by the Underwriters. Refer to section "**2.5.2 Underwriting Agreement**" for further details regarding the terms and conditions of the Underwriting Agreement.

The Direct Investor Portion and the Additional Placement Shares as part of the Institutional Offer were firmly subscribed by selected strategic corporate investors.

2.5 Background to the Equity Raising

2.5.1 Equity Raising

The New Shares originate from a capital increase against contribution in cash resolved by the Board of Directors on 9 December 2024 as part of a broader equity raising consisting of (i) of 26,339,245 New Shares and 1,680,672 Additional Placement Shares (as defined below) which were jointly placed to institutional investors generating gross proceeds of approximately EUR 100 million (A\$ 164 million) by way of a placement using the Company's existing placement capacity in accordance with the ASX Listing

Rules (the "**Institutional Offer** ") and (ii) up to approximately 3,418,803 new ordinary shares by means of a non-underwritten share purchase plan (SPP) offered to eligible existing shareholders targeting to raise up to EUR 12.2 million (A\$20 million) (together, the "**Capital Increase**" or the "**Equity Raising** "). As part of the Institutional Offer, the Company has, together with the Direct Investor Portion of the New Shares, also placed an amount of 1,680,672 new ordinary shares on a firm commitment basis to a strategic investor (the "**Additional Placement Shares**" and, together with the New Shares, the "**Placement Shares**"). The total amount of 28,019,917 Placement Shares were offered and placed, each at a price of EUR 3.57 (A\$ 5.85) (the "**Offer Price**").

The expected timetable of the Institutional Offer is provided in Table 5 below based on Central European Time (CET), which may be extended or shortened:

Table 5: Indicative Institutional Offer timeline (CET)

Event	Indicative Date
Launch of Institutional Offer and bookbuilding	10 December 2024
Trading halt on ASX	11 December 2024
Announcement of completion of bookbuilding and results	12 December 2024
Trading halt on ASX lifted	13 December 2024
Approval of Prospectus by BaFin	17 December 2024
Issuance of New Shares	18 December 2024
FSE Admission to listing of the New Shares	18 December 2024
Trading of the New Shares on the FSE and ASX	19 December 2024

The Company has also resolved on 9 December 2024 in connection with the Capital Increase to issue up to approximately 3,418,803 new ordinary shares from a capital increase against contribution in cash by means of a non-underwritten share purchase plan (SPP) offered to eligible existing shareholders targeting to raise up to EUR 12.2 million (A\$20 million) ("**Additional SPP Shares**" and, together with the Additional Placement Shares, the "**Additional New Shares** "). The issuance of the Additional New Shares is expected for January 2025 and are not the subject to the Admission to Trading under this Prospectus.

2.5.2 Underwriting Agreement

On 10 December 2024, the Company and the Underwriters entered into an Underwriting Agreement with respect to the Underwritten Portion of New Shares.

In the Underwriting Agreement, the Underwriters have agreed, subject to certain conditions, to act as joint lead managers, underwriters and bookrunners in connection with the Underwritten Portion of New Shares. If the Underwriters are unable to procure subscriptions for the Underwritten Portion of New Shares offered to institutional investors pursuant to the Institutional Offer, the Underwriters must (in their respective proportions), subscribe for, or procure other investors to subscribe for, the shortfall. The Underwriters have agreed to remit to the Company gross proceeds raised from the Underwritten Portion of New Shares, minus the underwriting and management fees payable to the Underwriters and costs, at the time the New Shares are delivered to investors, which is expected to be 18 December 2024.

2.5.2.1 Conditions

The obligations of the Underwriters are subject to various conditions, including, among other things, receipt of customary certificates and legal opinions.

2.5.2.2 Underwriting Fee

The Underwriters will procure subscriptions for the Underwritten Portion of New Shares under the Institutional Offer. If the Underwriters are unable to procure subscriptions for the New Shares offered to institutional investors pursuant to the Institutional Offer, the Underwriters must subscribe for, or procure other investors to subscribe for, any shortfall (in equal proportions). In return, they will receive from the Company an underwriting and management fee equal to 2.0% of the gross proceeds raised from the Underwritten Portion of New Shares, to be split equally between the Underwriters (in their respective proportions). In addition, the Company may in its sole discretion pay to the Underwriters an additional fee of up to 0.50% of the of the gross proceeds raised from the Underwritten Portion of New Shares, to be split equally between the Underwriters (in their respective proportions). The underwriting and management fee payable to the Underwriters may be withheld from the proceeds raised from the issue of the Underwritten Portion of New Shares.

The Company has also agreed to reimburse the Underwriters for certain costs and expenses, including legal fees of their advisers. Commissions and the reimbursement of costs and expenses by the Company represent a major part of the costs of the Company in connection with the Institutional Offer and the Admission to Listing (also see section "2.5.6 *Costs of the Admission to Trading and the* ").

2.5.2.3 Termination and Indemnification

The Underwriting Agreement provides that the Underwriters may, under certain circumstances, terminate the Underwriting Agreement. Reasons for termination include, in particular, the occurrence of any of the following events:

- o an outbreak of hostilities not presently existing (in all cases whether war has been declared or not) or a state of emergency declaration involving any of Australia, the United States, the United Kingdom, Japan, Hong Kong, Ukraine, a member state of NATO or a member of the European Union is declared by any of those countries, or there is a material escalation in relation to those matters or there is a major act of terrorism anywhere in the world not presently existing;
- o a general moratorium on commercial banking activities in Australia, the United States, Germany or the United Kingdom, is declared by the relevant central banking authority in any of those countries, or there is a material disruption in commercial banking or security settlement or clearance services in any of those countries;
- o trading in all securities quoted or listed on ASX, the London Stock Exchange, Frankfurt Stock Exchange or the New York Stock Exchange is suspended or limited in a material respect for one day on which that exchange is open for trading ("**Trading Day**"), or substantially all of a Trading Day, excluding any suspension or limitation of trading caused by or in connection with any technical or systems failure;
- o any adverse change or disruption to the political conditions or financial markets of Australia, the United Kingdom, the United States, Hong Kong, Japan, Germany or the international financial markets or any change or development involving a prospective adverse change in national or international political, financial or economic conditions;
- o Vulcan Group commits a material breach of the Corporations Act, its Constitution, the ASX Listing Rules or other applicable laws or has failed to comply with its continuous disclosure obligations under the Corporations Act or ASX Listing Rules
- o Vulcan is in breach of any term, condition, undertaking, representation, warranty or agreement of the Placement Agreement or a condition to the Placement Agreement is not satisfied or waived by its applicable deadline;

- o a new or materially revised law is introduced in Australia or Germany or any new regulation is made under any law, or a government agency adopts a policy, or there is any official public announcement that such a law or regulation will be introduced or policy adopted (as the case may be); or
- o a change in key management personnel of Vulcan or the board of directors of Vulcan is announced or occurs.

2.5.3 Subscription Commitment by Selected Strategic Investors

On 10 December 2024, the Company entered into subscription agreements with selected strategic investors pursuant to which the strategic investors committed to subscribe for the Direct Investor Portion of the New Shares and the Additional Placement Shares and the Company committed to deliver such Direct Investor Portion of the New Shares and the Additional Placement Shares to such selected strategic investors in connection with the Institutional Offer.

2.5.4 Capital Increase

The Board of Directors resolved to approve the Capital Increase on 9 December 2024.

Issuance and delivery of the New Shares is expected to occur on 18 December 2024 and trading of the New Shares is expected to commence on the regulated market (*Regulierter Markt*) of the FSE on or about 19 December 2024, in each case in accordance with the indicative timetable above. The New Shares are expected to be simultaneously admitted to trading on the ASX.

The issuance of the Additional New Shares is expected for January 2025.

2.5.5 Reasons for the Institutional Offer and the Admission to Trading and Use of Proceeds

The Company has applied for the Admission to Trading of the New Shares in connection with the issuance of the New Shares in order to raise additional funds pursuant to the Institutional Offer (as part of the Equity Raising) for the purposes of funding Phase One of the Project and for the further growth of the Company.

The Company targets gross proceeds of approximately EUR 100 million (A\$164 million) from the Institutional Offer. As the offer price has been set in both euro and Australian dollars and investors may subscribe for New Shares using either of those currencies, the Company may receive the proceeds of the Institutional Offer in a combination of euro and Australian dollars.

Table 6 illustrates how the Company intends to use the net proceeds from the Institutional Offer.

Table 6: Use of proceeds from Institutional Offer

No.	Intended Use of Proceeds (Phase One)	Estimated Amount (in EUR)
1.	Commence execution of the field development plan (FDP): rig mobilization and commencement of execution for first new production well; procurement to support FDP execution sequence and first production well	EUR 13m
2.	Commence EPC contracts: EPC for Organic Rankine Cycle geothermal renewable energy plant, cooling tower, 110kV substation and pipeline	EUR 30m
3.	Other execution CAPEX: Commitment to key supply agreements; acquisition of land and site establishment; completion of integrated pipeline loop; Engineering costs and completion of acquisition of Geox GmbH upstream Phase One lithium and renewable energy assets	EUR 25m
4.	Operating cost to support on-the-ground Phase One execution	EUR 24m
5.	General working capital	Remaining part

2.5.6 Costs of the Admission to Trading and the Institutional Offer

The costs of the Company related to the Admission to Trading and the Institutional Offer are expected to amount to approximately EUR 3.5 million.

Investors will not be charged expenses by the Company or the Underwriters. Investors will have to bear customary transaction and handling fees charged by their brokers or other financial institutions through which they hold their securities.

2.6 Dilution

There are no subscription rights or other rights of pre-emption/anti-dilution attaching to the Shares of the Company. Based on 188,188,571 Shares outstanding immediately prior to the Institutional Offer and assuming that none of the existing shareholders prior to the Institutional Offer subscribes for any Placement Shares in the Institutional Offer, each shareholder's percentage ownership in the Company's share capital and voting rights would decrease by 12.96% per existing Share.

The net book value of the shareholders' equity of the Company as of 30 June 2024 is calculated as the difference of "Total assets" less "Non-current liabilities" and "Current liabilities" each as presented as line items in the Unaudited Consolidated Interim Financial Statements 2024 as of 30 June 2024 and was EUR 288,342 thousand and therefore EUR 1.53 per Share, calculated on the basis of 188,188,571 issued Shares as of 30 June 2024.

Based on the foregoing, and following the deduction of the commissions, fees and other expenses related to the Institutional Offer and the Admission to Trading in the amount of approximately EUR 3,500 thousand, the net book value of the shareholders' equity of the Company would have been EUR 384,842 thousand or EUR 1.78 per Share as of 30 June 2024 (calculated on the basis of the number of 216,208,488 Shares issued after the implementation of the Capital Increase relating to the Placement Shares).

This corresponds to an accretion in the net book value of the shareholders' equity of the Company by EUR 0.25 or 16.33% per Share for the existing shareholders, as the adjusted net book value of the shareholders' equity of the Company exceeds the prior net book value of the shareholders' equity by this amount or this percentage. For purchasers of New Shares at the Offer Price (of EUR 3.57), this entails a theoretical loss of EUR (1.79) or (50.14)% per Share against the net book value of the shareholders' equity of the Company.

2.7 Interest of parties participating in the Admission to Trading and the Institutional Offer

The Underwriters act for the Company on the Institutional Offer (in relation to the Underwritten Portion of New Shares only) and coordinate the structuring and execution of the Institutional Offer. Upon successful implementation of the Capital Increase relating to the Underwritten Portion of New Shares, the Underwriters will receive a commission and the size of this commission depends on the results of the Institutional Offer (in relation to the Underwritten Portion of New Shares) as described in section "2.5.2 *Underwriting Agreement*" above. As a result of this contractual relationship, the Underwriters have a financial interest in the success of the Institutional Offer at the best possible terms.

Furthermore, in connection with the Institutional Offer, the Underwriters and any of their respective affiliates may take up a portion of the New Shares in the Institutional Offer as a principal position and in that capacity may retain, purchase or sell for its own account such Shares or related investments and may offer or sell such Shares or other investments otherwise than in connection with the Institutional Offer. In addition, certain of the Underwriters or their respective affiliates may enter into financing arrangements (including swaps, warrants or contracts for differences) with investors in connection with which the Underwriters (or their respective affiliates) may from time to time acquire, hold or dispose of Shares. None of the Underwriters or any of their respective affiliates intend to disclose the extent of any such investment or transactions otherwise than in accordance with any legal or regulatory obligation to do so.

The Underwriters or their respective affiliates have, and may from time to time in the future continue to have, business relations with Vulcan Group or may perform services for Vulcan Group in the ordinary course of business for which they have received or may receive customary fees and commissions.

Certain Directors of the Company hold Shares as well as performance rights relating to Shares and therefore have a personal interest in the performance of the Company's share price.

None of the aforementioned interests in the Admission to Trading or the Institutional Offer constitute a conflict of interests or a potential conflict of interests. Consequently, there are no conflicts of interest with respect to the Admission to Trading or the Institutional Offer.

2.8 Alternative performance measures and other key performance indicators

2.8.1 APM and ESMA Guidelines

This Prospectus contains certain references to capital expenditure which is not defined in IASB IFRS, IFRS or any other generally accepted accounting principles. This measure is an alternative performance measure ("**APM**") as defined in the guidelines issued by the European Securities and Markets Authority ("**ESMA**") on 5 October 2015 on Alternative Performance Measures (the "**ESMA Guidelines**"). This APM is used by the Company's management alongside other key performance indicators as financial measures to monitor the performance of the Company as well as to provide additional information to investors to measure the operating performance of the Company's business activities, but is not measurement of the Company's performance or liquidity under IASB IFRS, IFRS or any other accepted accounting principles and should not be considered as alternatives to net income (loss), revenue or any other performance measure derived in accordance with IASB IFRS or IFRS or any other generally accepted accounting principles. The Company believes that the presentation of the APM included in this Prospectus complies with the ESMA Guidelines.

The way in which the Company uses this APM may vary from the use by other companies in the Company's industry, even where other companies use APMs with the same or similar name. This APM has limitations as an analytical tool and should not be considered in isolation or as substitutes for analysis of the Company's results as reported under IASB IFRS. It may exclude or include amounts that are included or excluded, as applicable, in the calculation of the most directly comparable IASB IFRS or IFRS measures. Its usefulness is therefore subject to limitations.

This APM should be considered in conjunction with the Consolidated Annual Financial Statements and the respective notes thereto.

The definition of the APM used by the Company, information regarding its usefulness and a reconciliation to its most directly comparable IASB IFRS measures is provided below.

2.8.2 Capital expenditure

Capital expenditure includes investment in tangible and intangible assets (see section "6.8.2 Capital expenditure").

The Company believes that capital expenditure is a meaningful financial measure because it provides investors with information about the investments made by Vulcan Group in the business during the period that are expected to improve the Company's performance in the future and the capital costs involved in the development of Vulcan Group's business.

The following table shows the components of the Company's capital expenditure for the periods indicated.

Table 7: Capital Expenditure

	H1/FY24 EUR	H1/FY23 EUR	FY23 EUR	SFY22 EUR	FY22 EUR	FY21 A\$
	(unaudited)	(unaudited)	(audited, unless otherwise indicated)			
Software	39,000	119,000	328,000	137,000	168,000 ⁽¹⁾	164,136
Plant and Equipment	7,913,000	3,682,000	1,955,000	2,001,000	30,023,000 ⁽¹⁾	662,135
Assets under construction	18,473,000	28,743,000	66,163,000	18,166,000	22,314,000 ⁽¹⁾	743,037

Land and Buildings	15,000	1,974,000	3,211,000	-	-	-
Intangible Assets	-	327,000	387,000	-	4,102,000 ⁽¹⁾	-
Exploration & Evaluation	3,850,000	7,589,000	18,776,000	10,400,000	11,273,000 ⁽¹⁾	5,670,681
Capital expenditure	30,290,000⁽¹⁾	42,434,000⁽¹⁾	90,820,000⁽¹⁾	30,704,000⁽¹⁾	67,880,000⁽¹⁾	7,239,989⁽¹⁾

⁽¹⁾ Unaudited

2.8.3 Other key performance indicators

In addition to the APMs described above, the Company uses revenues and cash (each as included in the Consolidated Annual Financial Statements) and operating expenditure for the internal management of Vulcan Group (see section "6.6 Results of operations" and "6.6.2.1 Revenue from continuing operations").

Operating expenditure includes the ongoing costs for running a business. References to operating expenditure during the historical financial periods under review in this Prospectus include raw materials, external purchased services, administrative expenses, compliance and regulatory expenses, consulting and legal fees, depreciation and amortisation, employee benefits, investor relations, impairment, occupancy, share based payments and other expenses, all as stated in the Company's consolidated statement of profit or loss and other comprehensive income. However, references in this Prospectus to estimated operating expenditure in relation to Phase One of the Project as set forth in the Bridging Study relate only to project-level expenditure (including primarily reagents, operating supplies, maintenance supplies, water, steam, nitrogen, energy, labour, trucking, services and other costs) and exclude corporate overhead costs.

Moreover, the Company uses non-financial performance indicators in the human resources space ("Building a world-class team") and in the ESG space ("carbon neutral position"). Under the former, the Company measures and steers the growth of Vulcan Group's workforce (see section "8.11 Employees"). Under the latter, the Company benchmarks its efforts to become the world's first lithium chemicals and renewable energy producer with a carbon neutral footprint (see section "8.8.3 Vulcan Group's CO2 Footprint").

The Company previously disclosed EBITDA (defined as earnings before interest, taxes, depreciation and amortisation) as a key performance indicator. The Company, however, no longer discloses EBITDA as its management does not consider EBITDA a suitable metric to monitor the performance of the Company given Vulcan Group's current stage as a development company.

2.9 Forward-looking statements

This Prospectus contains certain forward-looking statements. A forward-looking statement is any statement that does not relate to historical facts or events or to facts or events as of the date of this Prospectus. Forward-looking statements can be identified by the use of forward-looking terminology or subjective assessments including "may", "will", "expect", "plan", "intend", "predict", "estimate", "anticipate", "target", "propose" or "forecasts". This applies, in particular, to statements in this Prospectus containing information on future earnings capacity, plans and expectations regarding Vulcan Group's business, growth and profitability, and the general economic and legal conditions and other factors to which Vulcan Group is exposed.

The forward-looking statements in this Prospectus are subject to uncertainties, as they relate to future events, and are based on estimates and assessments made to the best of the knowledge of the Company as of the date of this Prospectus. These forward-looking statements are based on assumptions, uncertainties and other factors, the occurrence or non-occurrence of which could cause the Company's actual results, including the financial condition and profitability of Vulcan Group, to differ materially from or fail to meet the expectations expressed or implied in the forward-looking statements. Accordingly, investors are strongly advised to consider this Prospectus as a whole and particularly ensure that they have read the following sections of this Prospectus: "1 RISK FACTORS", "6 MANAGEMENT'S DISCUSSION AND ANALYSIS OF NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS", "7 MARKET OVERVIEW", "8 BUSINESS" and "15 RECENT DEVELOPMENTS AND OUTLOOK". These sections include more detailed descriptions of factors that

might have an impact on Vulcan Group's business and the business environment in which Vulcan Group operates.

The forward-looking statements contained in this Prospectus speak only as of the date on which they were made. Investors are advised that the Company does not assume any obligation or intends to, except as required by law, publicly release any updates or revisions to these forward-looking statements to reflect any change in the Company's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based or to adjust them in line with future events or developments.

2.10 References regarding mineral resources, ore reserves and production targets

Refer to the Competent Person Report (which is included in this Prospectus and has been released to the market together with this Prospectus) for further details about the mineral resources, ore reserves and production targets (including forecast financial information derived from such production targets) included in this Prospectus.

The Company confirms that:

- in respect of estimates of mineral resources and ore reserves included in this Prospectus:
 - o it is not aware of any new information or data that materially affects the information included in the Competent Person Report, and that all material assumptions and technical parameters underpinning the estimates in the Competent Person Report continue to apply and have not materially changed; and
 - o the form and context in which the Competent Person findings are presented in this Prospectus have not been materially modified from the Competent Person Report; and
- in respect of the production targets (and the forecast financial information derived from such production targets) included in this Prospectus, all material assumptions underpinning those production targets and the forecast financial information derived from such production targets in the Competent Person Report continue to apply and have not materially changed.

2.11 Notes concerning currency and financial information

In this Prospectus, the following currency terms are used:

- "Australian dollars" or "A\$" means the lawful currency of Australia;
- "euros" or "EUR" means the lawful currency of the EU member states that adopted the single currency; and
- "US dollars" or "US\$" means the lawful currency of the United States of America.

If figures are denominated in a currency other than the Australian dollars, euros or US dollars, express reference is made in the corresponding figure or figures utilising the respective applicable currency abbreviation.

Vulcan Group's Consolidated Annual Financial Statements 2021 included in this Prospectus is presented in Australian dollars, which was Vulcan Energy Resources Limited's presentational currency during this financial year. However, Vulcan Group changed its presentational currency to euro with effect from the commencement of FY22. The Company believes this change provides shareholders with a more accurate reflection of its underlying performance, given the focus of Vulcan Group's activities on the European market, its acquisitions of several German-based operating entities and its planned operations in Europe from which Vulcan Group expects it will generate the majority of its revenue and costs.

As a result, Vulcan Group's Unaudited Consolidated Interim Financial Statements 2024, Consolidated Annual Financial Statements 2023, Consolidated Annual Financial Statements 2022 and Consolidated Short Financial Year Financial Statements 2022 included in this Prospectus are presented in euro. In section "6 MANAGEMENT'S DISCUSSION AND ANALYSIS OF NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS" of this Prospectus, certain financial information for the FY21 has been presented in both Australian dollars and euros, in order to enhance comparability with the

financial information for FY22, SFY22 and FY23 (which were presented in euros). Such financial information presented in euros for FY21 is based on a translation of the original Australian dollar information using:

- i. in respect of financial information from the Company's consolidated statement of profit or loss and other comprehensive income and its consolidated statement of cash flows, the average daily exchange rate during the period (being A\$ 1/ EUR 0.6260). The average daily exchange rate during the period has been used for the translation of this financial information in order to better reflect the movements in the exchange rate during the entire 12-month period covered by the consolidated statement of profit or loss and other comprehensive income and the consolidated statement of cash flows; and
- ii. in respect of financial information from the Company's consolidated statement of financial position, the exchange rate as of 30 June 2021 (being A\$ 1/ EUR 0.6320). This single exchange rate has been used for the translation of this financial information as the consolidated statement of financial position speaks only as of 30 June 2021.

Save in respect of financial information appearing in or extracted from Vulcan Group's Consolidated Financial Statements, and unless otherwise stated, translations from euros to Australian dollars appearing in this Prospectus have been calculated based on the exchange rate of A\$ 1 / EUR 0.61 (European Central Bank as of 12 December 2024, source: ECB, Statistics, Policy and Exchange Rates).

Some figures and percentages in this Prospectus have been rounded according to established commercial standards, whereby aggregate amounts (totals, sub-totals, differences or amounts in relation thereto) are calculated based on the underlying unrounded amounts. As a result, the aggregate amounts may not correspond in all cases to the corresponding rounded amounts contained in the text and tables. Moreover, in the tables, such rounded figures may under certain circumstances not add up precisely to the total figures which may also be included in the tables. The percentage changes that are stated in the text and the tables have been commercially rounded to a whole number unless stated otherwise. In addition, the financial information included in this Prospectus with respect to SFY22, FY22 (together with the euro translations of the financial information for FY21), FY23 and H1/FY24 (as compared to H1/FY23) has been rounded to the nearest EUR 1,000. With respect to financial data set out in the Prospectus, a dash ("—") signifies that the relevant figure is not applicable, while a zero ("0") signifies that the relevant figure is applicable but is or has been rounded to zero.

Where financial information contained in tables in this Prospectus is described as "audited", this means that it has been taken from the audited consolidated annual financial statements of the Company prepared in accordance with Australian Accounting Standards and Interpretations ("AASI") issued by the Australian Accounting Standards Board ("AASB") and the Australian Corporations Act (i) as of and for the financial year ended 30 June 2021 ("FY21") (the "**Consolidated Annual Financial Statements 2021**"), (ii) as of and for the financial year ended 30 June 2022 ("FY22") (the "**Consolidated Annual Financial Statements 2022**"), (iii) as of and for the short (six-month) financial year ended 31 December 2022 ("SFY22") (the "**Consolidated Short Financial Year Financial Statements 2022**") or (iv) as of and for the financial year ended 31 December 2023 ("FY23") (the "**Consolidated Annual Financial Statements 2023**") and, together with the Consolidated Annual Financial Statements 2021, the Consolidated Annual Financial Statements 2022 and the Consolidated Short Financial Year Financial Statements 2022, the "**Consolidated Annual Financial Statements**"). The Consolidated Annual Financial Statements comply with International Financial Reporting Standards ("**IASB IFRS**") as developed and published by the International Accounting Standards Board ("**IASB**"). According to Art. 1 a) of the Commission Decision of 12 December 2008 (2008/961/EC), IASB IFRS are to be regarded as equivalent to the IFRS adopted under Regulation (EC) No 1606/2002 ("**EU IFRS**"), provided that the notes to the audited financial statements contain an explicit and unreserved statement that these financial statements comply with "International Financial Reporting Standards in accordance with IAS 1 Presentation of Financial Statements". Where the financial information in this Prospectus is described as "unaudited", this means that it was not taken from the Consolidated Annual Financial Statements but was taken or derived from the unaudited interim consolidated financial statements of the Company as of and for the six-month period ended 30 June 2024 ("**H1/FY24**") (the "**Unaudited Consolidated Interim Financial Statements 2024**") and, together with the Consolidated Annual Financial Statements, the "**Consolidated Financial Statements**") or the Company's accounting records or internal management reporting systems or is based on calculations of these figures, or recomputed or derived from the abovementioned sources. All information on value increases and

decreases (absolute and in percentage terms) and ratios has been calculated by the Company and is unaudited.

In 2022, the Company changed its financial year end from 30 June to 31 December in order to align with the financial year commonly used in Germany (i.e. the calendar year), following the Company's initial listing on the regulated market (*Regulierter Markt*) of the FSE and in line with the Company's focus on developing its European renewable energy and lithium business. As a consequence, SFY22 consists of the six-month period from 1 July 2022 to 31 December 2022 and therefore is not fully comparable with the prior and future financial years of the Company, which cover 12-month periods.

2.12 Notes concerning sources of market data and information provided by third parties

This Prospectus contains information sourced from third parties, particularly in the form of sector and market data, calculations and statistics, which are derived from sector reports and studies, commercial publications, and publicly available information.

Following completion of the Bridging Study for Phase One, the Company commissioned an independent market study from Benchmark Mineral Intelligence ("**BMI**"), an independent cross-commodity PRA in the metals and mining, critical minerals, and rare earths markets, dated 19 July 2024 (the "**BMI Analysis**"). The BMI Analysis was commissioned to support the project debt-financing process for Phase One of the Project (see section "*8.1.3.5 Funding on Company Level and on Project Level*") and is not an expert report within the meaning of Item 1.3 of Annex I of the Commission Delegated Regulation (EU) 2019/980 of March 14, 2019. The Company has not verified any of the market data or other information included in the BMI Analysis, nor has the Company asked BMI to modify or otherwise adjust the BMI Analysis (except where the Company identified inaccuracies).

The Company has accurately reproduced information sourced from third parties (including the BMI Analysis) and, as far as it is aware and able to ascertain from information published by such third parties, no facts have been omitted which would render the reproduced information inaccurate or misleading. Investors should nevertheless treat this information with care. Market studies are frequently based on information and assumptions which are potentially neither exact nor appropriate, and their methodology is forward-looking and speculative by its nature. In addition, the Company is not able to determine whether the third parties who have prepared such sources will revise their estimates and projections to reflect more recent market developments. The Prospectus also contains Company estimates related to third-party market data which are based on published market data or figures derived from publicly accessible sources. Investors should take into account that the Company's estimates are based on such third-party market studies. Without affecting the assumption of responsibility for the content of this Prospectus by the Company (see section "*2.1 Responsibility for the content of this Prospectus*"), the Company has not verified the figures, market data and other information on which third parties have based their studies.

The following sources were used for the preparation of this Prospectus:

- European Central Bank, Statistics, Policy and Exchange Rates https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-aud.de.html
- German Federal Government, The Federal Chancellor's visit to a geothermal energy project in Bavaria, 24 August 2023, <https://www.bundesregierung.de/breg-en/search/future-technology-geothermics-2216188> ("**Bundesregierung**")
- Minviro Ltd, Prospective Life Cycle Assessment Study of Lithium Hydroxide Monohydrate Production at the Zero Carbon Lithium™ Project, 22 March 2024 ("**Minviro**")
- S&P Global Metals Daily, Volume 11 / Issue 249 / January 13, 2023 ("**S&P Global Daily**")
- Fastmarkets, Will Europe have enough lithium to meet demand?, 25 July 2023, <https://www.fastmarkets.com/insights/will-europe-have-enough-lithium-to-meet-demand/> ("**Fastmarkets Insights**")
- Vulcan Energy Resources Ltd, Vulcan Group's Bridging Engineering Study for Phase One of the Zero Carbon Lithium™ Project, announced 16 November 2023 ("**Bridging Study**").

Related ASX announcements can be accessed here
<https://www.investi.com.au/api/announcements/vul/7e316105-420.pdf> and here
<https://www.investi.com.au/api/announcements/vul/22623520-1b3.pdf>

- Benchmark Mineral Intelligence ("**BMI**"), Market report commissioned by the Company, 30 October 2024 ("**BMI Analysis**")
- Wood Mackenzie, Base Case Forecast LHM Pricing Q3 2024 ("**Wood Mackenzie**")
- Fastmarkets, Base Case Forecast LHM Pricing Q3 2024 ("**Fastmarkets**")
- Ms Kim Mohler, P.Eng. (GLJ Ltd, 1920, 401 – 9th Avenue S.W. Calgary, Alberta, Canada) and Ms G. Gabriella Carrelli, M. Sc., P. Geo. (GGC Geo Consulting, PO Box 844, Bragg Creek, Alberta, Canada T0L 0K0), Independent Expert Report for Vulcan Energy Resources Zero Carbon Lithium™ Project, 13 December 2024, set out in an annex to this Prospectus ("**Competent Person Report**" or "**Independent Expert Report**").

2.13 Documents available for inspection

The documents listed below can be inspected for the duration of the validity of this Prospectus on the Company's website at <https://v-er.eu/information-for-investors/>:

- the Competent Person Report dated 13 December as defined under section "2.12 *Notes concerning sources of market data and information provided by third parties*" (along with, and as part of, this Prospectus);
- the quarterly activities report summarizing the key developments of Vulcan Group's business in the third calendar quarter 2024 published on 25 October 2024 ("**Quarterly Activities Report**") in line with the requirements set forth by ASX and FSE regulations (on the "Investor Centre" / "Announcements" sub-site);
- the quarterly cashflow report (including unaudited cashflow information for the nine-month period ended 30 September 2024) published on 25 October 2024 ("**Quarterly Cashflow Report**") in line with the requirements set forth by ASX and FSE regulations (on the "Investor Centre" / "Announcements" sub-site);
- the Unaudited Consolidated Interim Financial Statements 2024 as defined under section "2.11 *Notes concerning currency and financial information*" (on the "Investor Centre" / "Announcements" sub-site under the caption "Annual Reports");
- the Consolidated Financial Year Financial Statements 2023 as defined under section "2.11 *Notes concerning currency and financial information*" (on the "Investor Centre" / "Announcements" sub-site under the caption "Annual Reports");
- the Consolidated Short Financial Year Financial Statements 2022 as defined under section "2.11 *Notes concerning currency and financial information*" (on the "Investor Centre" / "Announcements" sub-site under the caption "Annual Reports");
- the Consolidated Annual Financial Statements 2022 as defined under section "2.11 *Notes concerning currency and financial information*" (on the "Investor Centre" / "Announcements" sub-site under the caption "Annual Reports");
- the Consolidated Annual Financial Statements 2021 as defined under section "2.11 *Notes concerning currency and financial information*" (on the "Investor Centre" / "Announcements" sub-site under the caption "Annual Reports").

The Company's future financial reports and interim reports will be available at the Company's offices and will be published on the Company's website at <https://v-er.eu/information-for-investors/>.

A copy of the Company's constitution is available on the Company's website at <https://v-er.eu/corporate-directory-governance/> (under the caption "Constitution").

3. INFORMATION ABOUT THE SHARES

3.1 Voting rights, dividend rights, rights in the event of liquidation

As of the date of this Prospectus, prior to completion of the Institutional Offer, the Company has 188,188,571 fully paid Shares outstanding. The 188,188,571 Shares comprise the entire issued share capital of the Company.

In connection with and as part of the Institutional Offer, it is expected that the Company will issue 26,339,245 New Shares as part of the envisaged Capital Increase on 18 December 2024 which are the subject of the Admission to Trading under this Prospectus. Upon consummation of the Capital Increase relating to the New Shares, the Company's outstanding ordinary share capital will increase to 214,527,816 Shares.

Upon consummation of the Capital Increase, and assuming issue of all Placement Shares the Company's outstanding ordinary share capital will increase to 216,208,488 Shares.

The New Shares which are the subject of this Prospectus all carry the same rights, including full dividend rights. All New Shares are governed by the Company's constitution (the "**Constitution**"), the Australian Corporations Act, the ASX Listing Rules and Australian general law.

Each Share, including each New Share once issued, carries one vote at the Company's shareholders' meeting. Subject to any rights or restrictions for the time being attached to any class or classes of shares, at a general meeting of the Company's shareholders (each a "**Shareholder**"):

- each shareholder entitled to vote may vote in person or by proxy, attorney or corporate representative;
- on a show of hands, every person present who is a shareholder or a proxy, attorney or corporate representative of a shareholder has one vote;
- on a poll, each shareholder who is present in person or by proxy, attorney or corporate representative has one vote in respect of each Share held by that person, or in respect of which that person is appointed a proxy, attorney or corporate representative (but, in respect of partly paid shares, will have such number of votes as bears the same proportion to the total of such shares registered in the shareholders' name as the amount paid (not credited) bears to the total amounts paid and payable (excluding amounts credited).

See section "*12.3 General meetings of shareholders*" with respect to further detail on general meetings of shareholders.

As the New Shares are all fully paid, they will not be subject to any calls for money by Directors and will therefore not become liable for forfeiture. There are no subscription rights or other rights of pre-emption/anti-dilution attaching to the Shares of the Company (see section "*11.4 General provisions on changes in the share capital*" for additional detail with respect to shareholders' rights to participate in future capital issues).

For further information about the rights attaching to the Company's Shares, see:

- section "*3.5 Transferability of the Shares*" with respect to the transferability of Shares;
- section "*4.1 Dividend rights*" with respect to dividends; and
- section "*11.5 General provisions on changes in share rights*" with respect to the alteration of the rights attaching to Shares.

Full details of the rights attaching to the Company's Shares are set out in the Company's Constitution, a copy of which is available on the Company's website at <https://v-er.eu/corporate-directory-governance/>.

3.2 Form and representation of the Shares

All of the Shares have been issued as fully paid ordinary shares. The Shares are not represented by a physical share certificate. The Shares are in registered form.

The Shares are currently quoted on the securities exchange operated by ASX as well as on the regulated market (*Regulierter Markt*) of the FSE. Legal title to the Shares is registered electronically, and transfers of Shares occur electronically pursuant to the settlement facility known as the 'Clearing House Electronic Sub-register System' (CHES) operated by ASX Settlement in accordance with the settlement operating rules of ASX Settlement.

BNP Paribas Securities Services (Sydney Branch) acts as a local custodian for Clearstream Banking S.A., 42 Avenue JF Kennedy, L-1855 Luxembourg, Luxembourg ("**Clearstream**") in the Australian market, account holding institutions connected to the Clearstream system and, ultimately, investors wishing to trade their Shares on the regulated market (*Regulierter Markt*) of the FSE. BNP Paribas Nominees Pty Ltd, Level 6, 60 Castlereagh Street, Sydney NSW 2000, Australia (the "**Custodian**"), acting for BNP Paribas Securities Services (Sydney Branch), is recorded in the Company's share register as holder of the legal title to Shares transferred to investors on the regulated market (*Regulierter Markt*) of the FSE. As a result, such investors are beneficial owners of Shares so transferred, holding such Shares through their respective account holding institutions, Clearstream and, ultimately, the Custodian.

Due to the dual listing of the Company's Shares on the ASX and the FSE, investors are able to trade the Shares on the ASX and the FSE. Shares traded on the ASX are settled and cleared in A\$ through CHES operated by ASX Settlement in accordance with the settlement operating rules of ASX Settlement. Shares traded on the regulated market (*Regulierter Markt*) of the FSE are settled and cleared in euro within the Clearstream system.

3.3 Delivery and Settlement

The New Shares are expected to be delivered to investors on 18 December 2024.

3.4 ISIN/WKN/Trading symbol

The securities codes for the Shares are as follows:

International Securities Identification Number (ISIN)	AU0000066086
German Securities Code (WKN)	A2PV3A
Trading symbol	VUL
ASX Code	VUL

3.5 Transferability of the Shares

The Shares are freely transferable, subject to formal requirements, compliance with applicable securities laws, the registration of the transfer not resulting in a contravention of or failure to observe the provisions of a law of Australia and the transfer not being in breach of either the Australian Corporations Act or the ASX Listing Rules.

3.6 Paying agent

The paying agent is Automic Pty Ltd, Level 5, 191 St Georges Terrace, Perth, WA 6000, Australia.

3.7 Designated Sponsor

Joh. Berenberg, Gossler & Co. KG, Neuer Jungfernstieg 20, 20354 Hamburg, Germany, is currently performing the function of the designated sponsor (the "**Designated Sponsor**") for the Shares trading on the regulated market (*Regulierter Markt*) of the FSE for a period at least until 14 February 2025 and is entitled to designate an appropriately admitted third party to perform its functions. Pursuant to the designated sponsor agreement entered into between the Designated Sponsor and the Company, the Designated Sponsor will, among other things, place limited buy and sell orders for Shares in the electronic trading system of the FSE during regular trading hours against customary remuneration. This is intended to achieve greater liquidity in the market for Shares. Among other

things, the Designated Sponsor shall be available at all times during trading hours and, upon receipt of a request for a quote, shall promptly supply quotes and enter into transactions on such basis. In addition, the Designated Sponsor shall provide quotes throughout the auction. The Designated Sponsor receives a customary fee from the Company for its services.

3.8 Taxation

3.8.1 Tax warning

The tax legislation of an investor's country of residence and the tax legislation of Australia, as the Company's country of incorporation, may have an impact on any income received from the Shares.

The following information is a general summary of the Australian income tax, good and service tax ("**GST**") and stamp duty implications for investors who acquire shares under this Prospectus and hold Shares on capital account for Australian income tax purposes. This information has been prepared on the basis that the Company is a resident of Australia under Australian tax law and is not a tax resident of any other jurisdiction under a foreign law or a double taxation treaty. Please refer to section "1.5.3 *Vulcan Group is currently subject to the tax laws and regulations of Australia and Germany. Its tax burden may increase as a consequence of current or future tax assessments or court proceedings in connection with changes in domestic or foreign tax laws and double taxation treaties or changes in the application or interpretation thereof. The Company's tax burden may also increase should it be considered tax resident of Germany or any other jurisdiction.*" For further information concerning the Company's tax residency status. This information does not apply to investors that are exempt from Australian income tax or are subject to special tax regimes (such as life insurance companies), investors that hold Shares otherwise than on capital account (for example, as revenue assets or as trading stock), investors that acquired their Shares under an employee share scheme or investors who have opted into any of the elective tax timing methods under the Taxation of Financial Arrangements regime in Division 230 of the Income Tax Assessment Act 1997 (Cth).

The information in this section is based on the tax laws in Australia in force as at the date of this Prospectus. Australian tax laws are complex. This summary is general in nature, is not advice and is not intended to be an authoritative or complete statement of the applicable law. Taxation laws and/or their interpretation may change during an investor's period of ownership of the Shares.

In particular, the Australian Government has also proposed significant changes to the capital gains tax rules for foreign residents as outlined at section "3.8.2.3.2 *Disposal of Shares* below. Legislation to enact these changes has not yet been passed into law. Affected Investors should seek professional advice to determine how these proposals may apply to their own circumstances.

Investors should therefore consult their own tax advisors regarding the tax implications of acquiring, holding or transferring the Shares. Only qualified tax advisors are in a position to adequately consider the particular tax situation of individual investors. Taxation is only one of a number of matters investors may need to consider when making a decision about their investments.

3.8.2 Australian Taxation Considerations

3.8.2.1 Nature of Shares held through the Custodian

Under current law and practice, Shares held by an investor through the Custodian should generally be treated as if they are owned by the investor for Australian capital gains tax ("**CGT**") purposes. Similarly, dividends paid on the underlying Shares should also be treated as dividends paid to the investor, as the person who is presently beneficially entitled to those dividends.

Whilst the following discussion analyses the Australian CGT and dividend taxation consequences for investors holding legal title to their Shares, for Australian taxation purposes, the consequences should generally be the same for investors who hold beneficial title to their Shares through the Custodian.

3.8.2.2 Australian resident investors

The following discussion applies to investors that are residents of Australia for Australian income tax purposes, other than temporary residents and Australian residents that hold their Shares in carrying on business through a permanent establishment outside of Australia.

3.8.2.2.1 Dividends on Shares

Dividends paid by the Company on a Share should generally constitute assessable income of the investor.

Dividends may be franked (broadly, where a franking credit is attached to the dividend), unfranked (no franking credit is attached) or partially franked. To the extent that a dividend is unfranked, the investor will generally be assessed at their prevailing marginal rate on the dividend received (with no tax offset).

Investors who are individuals or complying superannuation entities should include the dividend in their assessable income. If the investor satisfies the "qualified person" rules (refer to further comments below), they should also include any franking credit attached to the dividend in their assessable income and should be entitled to a tax offset equal to the franking credit attached to the dividend. The tax offset can be applied to reduce the tax payable on the investor's taxable income. Where the tax offset exceeds the tax payable on the investor's taxable income, the investor should be entitled to a tax refund equal to the excess.

Corporate investors should include the dividend in their assessable income. Subject to satisfying the qualified person rules, they should also include the associated franking credit in their assessable income and should be entitled to a tax offset equal to the amount of the franking credit attached to the dividend. A corporate investor should be entitled to a credit in its own franking account to the extent of the franking credits attached to the distribution received. Excess franking credits received by corporate investors will not give rise to a refund entitlement, but may be able to be converted into carry forward tax losses.

Investors who are trustees (other than trustees of complying superannuation entities, trusts that are taxed in the same way as corporate investors and certain other trusts) or partnerships (other than corporate limited partnerships that are taxed in the same way as corporate investors) should include the dividend in determining the net income of the trust or partnership. Subject to satisfaction of the "qualified person" rules, such investors should also include any franking credit attached to the dividend in their net income. The relevant beneficiary or partner may be entitled to a tax offset in respect of the franking credit in proportion to the beneficiary's or partner's share of the net income of the trust or partnership (as applicable). The rules relating to the treatment of franked dividends and associated franking credits are complex in the context of distributions received indirectly via a trust or partnership, and it is recommended that investors seek independent advice on the tax consequences arising in these circumstances.

The benefit of franking credits can be denied where an investor is not a "qualified person", in which case the investor will not need to include the amount of the franking credits in their assessable income and will not be entitled to a tax offset.

Broadly, to be a "qualified person", two tests must be satisfied: the holding period rule and, if relevant, the related payment rule. The holding period rule requires an investor to hold the Shares "at risk" for a continuous period of at least 45 days, commencing the day after the investor acquires the Shares and ending on the 45th day after the day Shares become ex-dividend excluding (if the Shares have been disposed of) the day of disposal. The holding period rule is subject to certain exceptions, including where the total franking offsets of an individual in a year of income do not exceed A\$5,000.

Under the related payment rule, a different testing period applies where the investor has made (or is under an obligation to make) a "related payment" in relation to the dividend. In that case, the investor must have held the Shares "at risk" for a period of at least 45 days during the period commencing on the 45th day before, and ending on the 45th day after, the day the Shares become ex-dividend excluding (if the Shares have been disposed of) the day of disposal.

There are also specific integrity rules that prevent taxpayers from obtaining a tax benefit from additional franking credits where dividends are received as a result of "dividend washing" or certain other arrangements.

Investors should seek professional advice to determine how the tax rules relating to dividends and dividend imputation apply to their own circumstances.

3.8.2.2.2 Disposal of Shares

An investor will derive a capital gain on the disposal of Shares where the capital proceeds received on the disposal exceed the CGT cost base of the Shares. Broadly, the CGT cost base of the Shares should include the amount paid to acquire the Shares plus certain other costs.

A CGT discount may be applied to the capital gain for individual investors, certain trustee investors and investors that are complying superannuation entities, provided the particular Shares are held for at least 12 months prior to entering into any agreement effecting the disposal and certain other requirements are met. The CGT discount (if available) for individuals and certain trusts is 50% and for complying superannuation entities is 33⅓%. The CGT discount and related rules applying to trusts and their beneficiaries are particularly complex.

Any current year or carry forward capital losses for that investor should (subject to any applicable integrity rules) offset the capital gain first before the CGT discount is applied and the resulting amount included in the investor's net capital gain for the income year. Investors should seek professional advice on how the CGT rules apply to their circumstances.

An investor will incur a capital loss on the disposal of their particular Shares to the extent that the capital proceeds on disposal are less than the CGT reduced cost base of the Shares. The CGT reduced cost base is calculated in a similar way to the CGT cost base, with certain modifications. Capital losses may only be offset against capital gains and cannot be used to offset other types of income.

If an investor derives a net capital gain in an income year, this amount is generally included in the investor's assessable income for the income year. If an investor incurs a net capital loss in an income year, this amount is carried forward and is available to offset against capital gains derived in subsequent income years, subject to corporate investors satisfying certain rules relating to the recoupment of carry forward losses.

3.8.2.3 Foreign resident investors

The following discussion applies to investors that are not residents of Australia for Australian income tax purposes and do not hold their Shares in carrying on business through a permanent establishment in Australia.

3.8.2.3.1 Dividends on Shares

Fully franked dividends paid to foreign resident investors are generally not subject to Australian withholding tax. Dividends that are not fully franked dividends will be subject to withholding tax on the unfranked portion, except to the extent that (for example) the dividend is declared to be "conduit foreign income" (in essence dividends paid out of income and gains that have a foreign source from an Australian perspective which would include dividends received from non-Australian subsidiaries).

To the extent unfranked dividends are not paid out of conduit foreign income, dividend withholding tax will apply at the rate of 30% unless an exemption applies or a lower withholding tax rate applies under a double tax treaty. For example, in the case of residents of Germany, the rate is generally reduced to 15% under the Australia – Germany double tax treaty (this rate may differ in certain circumstances).

Generally, a foreign resident holder of Shares (who is not also a tax resident of Australia and who does not hold Shares as a business asset through a permanent establishment in Australia) with no other Australian source income or gains is not required to file an Australian tax return.

3.8.2.3.2 Disposal of Shares

Foreign resident investors that hold their Shares on capital account for Australian tax purposes should consider the impact of the Australian CGT rules on the disposal of their Shares. Generally, a capital gain or loss made by a foreign resident investor from disposing of their Shares should be disregarded for Australian CGT purposes, subject to the following two exceptions:

- (a) where the Shares are held as part of a trade or business conducted through a permanent establishment in Australia; or
- (b) in circumstances where:

- (i) the investor and its associates hold (or have held for a 12 month period during the last 24 months) an interest of 10% or more in the issued capital of (or certain voting rights or rights to distributions from) the Company; and
- (ii) at the time of the disposal, more than 50% of the value of the Company's assets are attributable to taxable Australian real property (see definition below).

The definitions of the terms 'associates' and 'taxable Australian real property' for Australian tax purposes are complex. It is recommended that foreign resident investors seek their own advice as to how these expressions may apply to their circumstances. Broadly, taxable Australian real property includes real property situated in Australia (including a lease of land, if the land is situated in Australia) or a mining, quarrying or prospecting right (to the extent that the right is not real property), if the minerals, petroleum or quarry materials are situated in Australia.

The Australian Government has proposed to amend the test described at paragraph (b)(ii) in two ways to expand the circumstances where a foreign resident Investor will be taxed on capital gains from CGT events on or after 1 July 2025 by:

- a) revising the test from a "point in time" test (being the time of the CGT event) to a 365 day "look back" test (from the time of the CGT event); and
- b) extending the definition of taxable Australian real property to include assets that "have a close economic connection to Australian land and/or natural resources" (broadly speaking this will expand the current definition to capture assets that are closely related to Australian land and/or natural resources but do not meet the existing definition).

Legislation to enact these changes has not yet been drafted or passed into law, but once passed, the measure will apply to CGT events commencing on or after 1 July 2025. Affected Investors should seek professional advice to determine how these proposals may apply to their own circumstances.

3.8.2.4 Tax file numbers

If an investor does not validly quote its TFN, ABN or details of a relevant exemption, Australian tax withholding (known as TFN withholding) may be required to be deducted from distributions and/or dividends at the top individual marginal rate plus applicable levies (currently, 47%). Australian tax resident investors may be able to claim a tax credit in respect of any such amounts withheld in their income tax returns.

Investors who are not tax resident in Australia should generally be entitled to an exemption from the TFN withholding rules. This means that mandatory TFN withholding may not be required with respect to unfranked dividends or distributions paid to such investors, irrespective of whether those investors have quoted their TFN or (where applicable) ABN. Non-resident investors should obtain specialist tax advice with respect to the application of the TFN withholding rules to them.

3.8.2.5 Goods and Services Tax ('GST')

No Australian GST should be payable by investors in respect of their acquisition of the Shares. The extent to which an investor is entitled to recover any GST incurred on costs relating to their acquisition of Shares will depend on the particular circumstances of that investor.

No GST should be payable by investors on receiving dividends distributed by the Company.

3.8.2.6 Stamp duty

No Australian stamp duty should be payable by investors in respect of their acquisition of Shares.

4. DIVIDEND RIGHTS AND DIVIDEND POLICY

4.1 Dividend rights

Subject to and in accordance with the Australian Corporations Act, the ASX Listing Rules, the rights of any holders of preference shares and the rights of the holders of any shares created or raised under any special arrangement as to dividends, the Directors may from time to time decide to pay a dividend to the shareholders entitled to the dividend which shall be payable on all Shares according to the proportion that the amount paid (not credited) is of the total amounts paid and payable (excluding amounts credited) in respect of such Shares.

The Directors may from time to time pay to shareholders any interim dividends they determine. No dividend will carry interest as against the Company. The Directors may set aside out of the profits of the Company any amounts that may determine as reserves, to be applied at the discretion of the Directors, for any purpose for which the profits of the Company may be properly applied.

Subject to the ASX Listing Rules and the Australian Corporations Act, the Company may, by resolution of the Directors, implement a dividend reinvestment plan on such terms and conditions as the Directors think fit and which provides for any dividend which the Directors may declare from time to time payable on Shares which are participating Shares in the dividend reinvestment plan, less any amount which the Company may either pursuant to the Company's Constitution or any law be entitled or obliged to retain, be applied by the Company to the payment of the subscription price of Shares.

4.2 Dividend policy and dividends per Share

No dividend or distribution of profits were paid to the Company's shareholders in FY21, FY22, SFY22 or FY23 or in the period between 1 January 2024 and the date of this Prospectus.

The Company anticipates that significant expenditure will be incurred in the evaluation and development of the Company's projects. These activities, together with the possible acquisition of interests in other projects, are expected to dominate at least the first two-year period following the date of this Prospectus. Accordingly, the Company does not expect to declare any dividends during that period.

Any future determination as to the payment of dividends by the Company will be at the discretion of the Directors and will depend on the financial condition of the Company, future capital requirements and general business and other factors considered relevant by the Directors. No assurance in relation to the payment of dividends or franking credits, i.e. credits investors may receive for underlying taxes paid by the Company via the dividend imputation system, attaching to dividends can be given by the Company.

5. CAPITALISATION AND INDEBTEDNESS

The tables below set forth Vulcan Group's capitalisation and net financial indebtedness (i) as of 30 September 2024 taken or derived from the Company's internal accounting records or reporting systems prior to the implementation of the Institutional Offer, (ii) the adjustment for the Institutional Offer and (iii) total number of (i) as adjusted for (ii). The adjustment in (ii) is based on the assumption that the Institutional Offer had taken place on 30 September 2024 and did not reflect any tax effects.

The following information should be read in conjunction with section "6 MANAGEMENT'S DISCUSSION AND ANALYSIS OF NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS" and the Consolidated Annual Financial Statements, including the notes thereto, contained in the "Financial Information" section of this Prospectus and additional financial information contained elsewhere in this Prospectus.

5.1 Statement of capitalisation

Table 8: Statement of capitalisation

in EUR	(i) As of 30 September 2024	(ii) Adjustment for the Institutional Offer	(iii) Total
	(unaudited)	(unaudited) ⁽¹⁾	(unaudited)
Total current debt (including current portion of non-current debt)⁽²⁾	11,791,000	-	11,791,000
thereof guaranteed	-	-	-
thereof secured	-	-	-
thereof unguaranteed/unsecured	11,791,000	-	11,791,000
Total non-current debt (excluding current portion of non-current debt)⁽³⁾	7,170,000	-	7,170,000
thereof guaranteed	-	-	-
thereof secured	-	-	-
thereof unguaranteed/unsecured	7,170,000	-	7,170,000
Shareholders' equity⁽⁴⁾	287,908,000	96,500,000	384,408,000
Share capital ⁽⁵⁾	362,854,000	96,500,000	459,354,000
Legal reserve ⁽⁶⁾	13,235,000	-	13,235,000
Other reserves ⁽⁷⁾	(88,181,000)	-	(88,181,000)
Total⁽⁸⁾	306,869,000	96,500,000	403,369,000

(1) Reflects an increase in the Company's share capital by EUR 96,500,000 as a result of the Institutional Offer.

(2) This item corresponds to total current liabilities which consist of trade and other payables, deferred consideration payments, lease liabilities, loans and borrowings, provisions, deferred income and income tax liabilities.

(3) This item corresponds to total non-current liabilities which consist of lease liabilities, loans and borrowings, provisions, deferred income and deferred tax liabilities.

(4) This item corresponds to the total of contributed equity, reserves and accumulated losses.

(5) This item corresponds to contributed equity.

(6) This item corresponds to reserves.

(7) This item corresponds to accumulated losses as presented in the Company's Unaudited Consolidated Interim Financial Statements 2024 as of 30 June 2024 disregarding any profit or loss or other comprehensive income for the period since 30 June 2024.

(8) This item comprises the total of the total current debt, total non-current debt and shareholders' equity.

5.2 Statement of indebtedness

Table 9: Statement of indebtedness

in EUR	(i) As of 30 September 2024	(ii) Adjustment for the Institutional Offer	(iii) Total
	(unaudited)	(unaudited)	(unaudited)
A. Cash ⁽¹⁾	36,470,000	96,500,000	132,970,000
B. Cash equivalents ⁽²⁾	-	-	-
C. Other current financial assets ⁽³⁾	7,954,000	-	7,954,000
D. Liquidity (A + B + C)	44,424,000	96,500,000	140,924,000
E. Current financial debt (including debt instruments, but excluding current portion of non-current financial debt) ⁽⁴⁾	10,775,000	-	10,775,000
F. Current portion of non-current financial debt ⁽⁵⁾	1,016,000	-	1,016,000
G. Current financial indebtedness (E + F)	11,791,000	-	11,791,000
H. Net current financial indebtedness (G – D)	(32,633,000)	(96,500,000)	(129,133,000)
I. Non-current financial debt (excluding current portion of debt instruments) ⁽⁶⁾	7,170,000	-	7,170,000
J. Debt instruments ⁽⁷⁾	-	-	-
K. Non-current trade and other payables ⁽⁸⁾	-	-	-
L. Non-current financial indebtedness (I + J + K)	7,170,000	-	7,170,000
M. Total financial indebtedness (H + L)	(25,463,000)	(96,500,000)	(121,963,000)
(1)	This item corresponds to total cash.		
(2)	This item corresponds to cash equivalents.		
(3)	This item corresponds to current trade and other receivables.		
(4)	This item corresponds to current liabilities (excluding current portion of non-current liabilities) including trade and other payables, deferred consideration payments, provisions, deferred income and income tax liabilities.		
(5)	This item corresponds to current loans and borrowings, and lease liabilities.		
(6)	This item corresponds to non-current liabilities including loans and borrowings, lease liabilities, provisions, and deferred tax liabilities.		
(7)	This item corresponds to bonds.		
(8)	This item corresponds to non-current trade and other payables.		

5.3 Lease liabilities

As of 30 September 2024, the financial debt as presented in the statement of indebtedness includes lease liabilities of EUR 3,781,000, of which EUR 1,016,000 are current, and EUR 2,765,000 are non-current.

5.4 Indirect and contingent indebtedness

The Company's indirect and contingent indebtedness as of 30 September 2024 amounted to nil.

5.5 Statement concerning working capital

In the Company's opinion, the working capital of Vulcan Group is sufficient to meet Vulcan Group's present requirements over at least the next twelve months following the date of this Prospectus.

As the Placement Shares in the Institutional Offer are firmly underwritten or fully committed, the proceeds from the Institutional Offer have been included in the Company's calculation of its working capital.

6. MANAGEMENT'S DISCUSSION AND ANALYSIS OF NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS

*The financial information contained in the following section is taken or derived from the Consolidated Financial Statements or the Company's accounting records or internal management reporting systems. The Consolidated Financial Statements have been prepared in accordance with AASB issued by the AASB and the Australian Corporations Act. The Consolidated Financial Statements comply with IASB IFRS as developed and published by the IASB. The Consolidated Annual Financial Statements were audited by RSM, who issued unqualified independent auditor's reports thereon. According to Art. 1 a) of the Commission Decision of 12 December 2008 (2008/961/EC), IASB IFRS are to be regarded as equivalent to the IFRS adopted under Regulation (EC) No 1606/2002 ("**EU IFRS**"), provided that the notes to the audited financial statements contain an explicit and unreserved statement that these financial statements comply with "International Financial Reporting Standards in accordance with IAS 1 Presentation of Financial Statements". The Consolidated Financial Statements are reproduced in this Prospectus beginning on page F-1. For purposes of this section 6, the "periods under review" includes FY21, FY22, SFY22, FY23 and H1/FY24.*

Investors should read the following discussion and analysis of financial condition and results of operations in conjunction with the Consolidated Annual Financial Statements and the Unaudited Consolidated Interim Financial Statements 2024 as well as the notes to those Consolidated Annual Financial Statements and the Unaudited Consolidated Interim Financial Statements 2024. Some of the statements contained below include forward-looking statements. Because such statements involve inherent uncertainties, actual results may differ materially from the results expressed in or implied by such forward-looking statements. Investors can find a discussion of such uncertainties elsewhere in this Prospectus including, in section "2.9 Forward-looking statements" and section "1 RISK FACTORS".

6.1 Overview

Vulcan Group is an Australian headquartered lithium battery chemicals and renewable energy group with a clear goal to become the world's first integrated lithium chemicals and geothermal renewable energy producer. In addition, the Company endeavours to become Europe's first fully domestic sustainable lithium chemicals producer, and seeks to differentiate itself from its peers through proven sustainability credentials of its business, as evidenced by (a) the lowest greenhouse gas footprint per tonne LHM to be produced for a lithium company according to Benchmark Mineral Intelligence and (b) the world's first S&P Global "Dark Green" rating for a mining and metals company (which is awarded to companies dedicated to the long-term vision of a low-carbon, resilient future). With the Project, Vulcan Group intends to combine the operations of extracting lithium chloride salt from geothermal brines in the Upper Rhine Valley of Germany, of upgrading lithium through electrolysis to a high purity LHM (Vulcan Group's lithium business), and of producing geothermal energy (Vulcan Group's renewable energy business). Vulcan Group's Project intends to produce a battery-quality lithium chemical product from its combined geothermal renewable energy and lithium resource located in the Upper Rhine Valley. Vulcan Group's combined geothermal energy and lithium resource is estimated to be the largest in Europe on a lithium carbonate equivalent ("**LCE**") basis (according to public information, as estimated and reported in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("**JORC Code**") (source: Bridging Study; see section "2.10 References regarding mineral resources, ore reserves and production targets" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus). In Vulcan Group's opinion, Vulcan Group's relevant peers are European Metals Ltd (ASX: EMH), Rio Tinto Limited (ASX:RIO); Infinity Lithium Corporation Limited (ASX:INF); Sibanye Stillwater Limited (JS:SSW) and Savannah Resources PLC (AIM:SAV), all being lithium companies with lithium projects located in Europe. The first phase of the Project is designated as "Lionheart" ("**Lionheart**" or "**Phase One**"). Pursuant to the Bridging Study, Phase One includes the construction of one geothermal plant, one lithium extraction plant ("**LEP**") and a central lithium plant ("**CLP**"), currently targeting a commercial production start in 2027, and aims for a production target capacity of approximately 24,000 metric tonnes per annum ("**tpa**") LHM as well as more than 275 gigawatt hours ("**GWh**") per annum ("**GWh/a**") of renewable power and more than 560 GWh/a of renewable heat production capacity. Vulcan Group intends to develop further phases across its licence area, as the Company plans to grow production in a staged, modular fashion. Whilst Vulcan Group has a target to develop a new phase of production every few years, the development of any further expansion beyond Phase One remains subject to availability of funding, and the exact timing is still to be defined.

Vulcan Group aims to supply the BEV market in Europe, which is currently mostly reliant on imports of lithium chemicals given the lack of domestic supply. The Project has also been designed from its inception to help decarbonise the German electrical and local heating grids and lithium supply chain simultaneously and is expected to have the lowest planned carbon footprint on a per tonne of LHM basis in the lithium industry compared to any previously published life cycle assessment results (source: BMI Analysis). An essential part of the Project involves the use of thermal water as the principal heat source to drive the lithium extraction, which means that lithium is expected to be extracted from the brine with a carbon neutral footprint without polluting the environment with waste material or toxic substances prior to the brines being re-injected in a closed loop, circular system.

Vulcan Group generated revenues from continuing operations of EUR 3,753,000 in H1/FY24 and EUR 6,783,000 in FY23, respectively. As at 30 June 2024 and 31 December 2023, Vulcan Group had net assets of EUR 288,342,000 and EUR 268,281,000, respectively.

In addition to its consolidated subsidiaries, Vulcan Group also holds a minority interest in Kuniko Limited (ASX Code: KNI) ("**Kuniko**"), an ASX-listed company focused on developing hard-rock battery metals projects in Scandinavia that was spun off and deconsolidated from Vulcan Group in August 2021.

6.2 Key factors affecting Vulcan Group's results of operations

Vulcan Group's results of operations have been, and will continue to be, affected by many factors, some of which are beyond Vulcan Group's control.

Historically, Vulcan Group's negative operating result has been driven by Vulcan Group's expenses (in particular, share-based payments, consulting and legal fees and administrative expenses) in the absence of any material revenue, as Vulcan Group has not yet commenced production (save for production of renewable power at the Insheim Plant, as discussed below). Vulcan Group has also incurred significant capitalised expenses connected with developing the technology and extraction processes that underpin the Project, identifying suitable locations for lithium extraction activity and obtaining the necessary exploration licences, conducting exploration and development activities, undertaking feasibility studies, undertaking pilot testing works, building optimisation plants, engaging in acquisitions of companies related to Vulcan Group's strategy and other preliminary work. These expenses, combined with construction costs as Vulcan Group builds the facilities and infrastructure necessary to implement the Project, will continue to be a significant component of Vulcan Group's business through the commencement of commercial production of geothermal renewable energy and LHM in Phase One, currently targeted to occur in 2027. In addition to this, the expected debt component of Vulcan Group's project financing will require periodic interest payments to be made for the term of the debt. These interest payments may have a material negative impact on the Company's operating result and generate additional losses before taxation prior to the entry into commercial production.

Vulcan Group acquired the Insheim Plant in December 2021 and commenced earning revenues and incurring expenses in connection with the operation of the Insheim Plant's existing renewable power business in FY22. During construction of the remaining facilities and infrastructure required for the Project, and after the commencement of commercial production, there are several key items that the Company expects will impact its results from operations on a consolidated basis. These items are described below.

6.2.1 The demand for and price at which Vulcan Group will be able to sell its LHM product

The Company estimates that, once commercial production of LHM has commenced, sales of its LHM product will account for a substantial majority of its revenues. Therefore, once commercial production has commenced, the sales price Vulcan Group is able to receive from customers for its LHM product is expected to be the most significant factor affecting Vulcan Group's results of operations.

Vulcan Group has, to date, entered into five binding lithium offtake agreements in respect of its future LHM production (see section "*8.5.5 Lithium Offtake Agreements*").

The pricing under each of Vulcan Group's existing lithium offtake agreements will be set monthly, quarterly, or on a six-month basis, and will be based on market prices for lithium, as calculated by reference to market recognised PRA contract-based indices. Therefore, movements in the market

price of LHM are expected to have a substantial effect on Vulcan Group's results from period to period. With a number of embedded costs (such as maintenance, power and consumables) being necessary for the operation of Vulcan Group's facilities, any sustained increase or decrease in the market price of lithium would likely have a direct impact on Vulcan Group's profits (positively or negatively, respectively). However, as Vulcan Group intends to sell substantially all of its LHM pursuant to lithium offtake agreements and the pricing under such lithium offtake agreements will be based on a mix of fixed price and indexation based on market prices calculated by reference to certain market indices, Vulcan Group does not expect to be exposed to the day-to-day spot market and believes that its pricing will be generally less volatile than the spot market. Additionally, Vulcan Group has included price floors and ceilings, and fixed pricing in relation to part of the secured volume with certain offtakers, with the aim of bringing more stability to revenues.

The Company believes that, once operational, the Project (which is based on a thirty year project, asset and infrastructure life) will incur relatively low estimated operating costs compared to other methods of processing LHM (such as hard rock mining), with benefits including a low cost feedstock of brine from Vulcan Group's geothermal plants serving both lithium extraction and energy production in the form of renewable electricity and heat. The Company believes this will enable it to preserve more of the upside from any increases in the price of LHM to enhance margins.

The demand for, and prices of, LHM are influenced by various factors, including the state of the global economy, the stability of international trade, global and regional capacity and supply, government policies, regulatory developments to promote electric vehicles, consumer preferences, currency exchange fluctuations, other commodity prices and developments in the industrial and commercial uses of LHM and other alternative commodities. In particular, Vulcan Group anticipates that the LHM it produces will be used as a component of lithium-ion batteries, especially for use in electric vehicles. As Vulcan Group's operations in Phase One are mainly based in the Upper Rhine Valley in Germany, Vulcan Group believes its sales will be primarily to European offtake customers, and although Vulcan Group may also sell to customers outside of Europe, Vulcan Group's results are expected to be affected particularly by European demand for lithium products.

Vulcan Group expects that demand will be supported by increasing regulation of vehicle carbon emissions and government support and incentives for BEVs. Vulcan Group believes that Europe will represent a significant source of demand for BEVs in the coming years, and expects that demand for lithium products, particularly LHM, will increase in Europe in line with growth in BEV production and sales and changes in manufacturing plans. BMI is forecasting a significant increase in the market penetration of BEVs in Europe, from 12.5% in 2022 to over 80% by 2035 (source: BMI Analysis). Correspondingly, the trend towards trying to localise lithium-ion battery supply has been most evident in Europe for several years and mostly predicated upon the expected tightening of legislation and the perceived value of achieving security of supply and bringing lithium-ion battery production closer to existing auto assembly hubs (source: BMI Analysis). The global annual consumption of lithium is expected to increase from 360,000 tonnes in 2020 to 2.9 million tonnes by 2030, mostly from BEV production growth, which would represent an eightfold increase in ten years (source: BMI Analysis).

Nevertheless, as BEV uptake is heavily reliant on government regulations and incentives (such as subsidies), demand for BEVs (and, in turn, lithium products for BEV batteries) will be affected by changes in government policy affecting these regulations and incentives. Forecasts for growth in BEV uptake are subject to a degree of uncertainty, and the level of actual BEV uptake will have a strong correlation with demand for lithium products and the price at which it is sold.

Vulcan Group believes that its lithium resource in the Upper Rhine Valley and its extraction and processing expertise potentially position the Company to be able to manufacture a product with low impurities to meet stringent demands of major battery materials manufacturers. High-nickel content cathode chemistries are expected to become the preferred technology outside of China in the long term due to its higher energy density and, therefore, longer driving range capability for BEVs (source: BMI Analysis). The energy density (or specific energy, energy per mass) of LHM exceeds that of lithium carbonate. This shift is therefore expected to increasingly require battery-grade LHM in the production of cathode materials. As a result, battery-grade LHM is expected to be the preferred and predominant product type in Europe (source: BMI Analysis).

Additionally, Vulcan Group expects that in the future its sales prices may benefit from the Project's business objective of producing lithium with a carbon neutral footprint, with a focus on the use of naturally occurring, renewable geothermal energy in its lithium extraction process, no use of fossil fuels, relatively low water requirements and a small land footprint. This is a significant differentiator

from other current methods of lithium extraction and processing, such as hard-rock mining and reagent-based plus evaporation pond methods. Additionally, European companies currently import all of their required battery-grade lithium chemicals and, if local supply is not developed in Europe, European buyers are expected to continue to have to import their lithium chemical requirements, primarily from Asia (with the associated carbon impact and cost). The availability of lithium chemicals with a climate neutral footprint produced in Europe may therefore represent a significant opportunity for European companies to de-risk their supply chain, localise supply, and lower their carbon footprint, which is increasingly important to companies both from a social and environmental responsibility perspective and from a regulatory perspective. For example, in 2023 the EU adopted a new regulation (EU 2023/1542) on batteries and waste batteries ("**New Battery Regulation**") which requires batteries to meet certain mandatory green and social requirements before entering the EU market and requires companies to disclose the carbon footprint of each battery. The New Battery Regulation provides for phased implementation, starting from February 2024, with a number of substantive requirements (including information disclosure requirements related to the origin and constitution of batteries and restrictions on lead content) effective since August 2024 (see section "10.1.1 New Battery Regulation"). Additionally, the EU has recently adopted a new carbon border adjustment mechanism ("**CBAM**") that will require EU companies importing certain goods to buy carbon certificates equivalent to the carbon price that would have been paid if the goods had been produced under the EU's carbon pricing rules. Imports covered by the CBAM regime would include power and industrial sector goods such as those involved in the manufacturing of cement, steel, chemicals and fertilisers, as well as electricity and hydrogen, and it is thought that chemicals such as LHM could eventually be covered by the regime. This regime is being introduced through a transitional period which commenced in 2023 with full implementation by 2026 (see section "10.1.2 Carbon Border Adjustment Mechanism"). The Company believes that the CBAM regime may provide a significant incentive for European companies to source sustainably produced lithium chemicals from within Europe and may have a positive effect on the price Vulcan Group is able to achieve for its lithium product in future sales contracts. Additionally, Vulcan Group is seeking trademark protection of its V-LiON™ logo. If such registration is successful, Vulcan Group intends to licence the trademark to customers, allowing them to show electric vehicle consumers that they are working on improving their carbon footprint by working with suppliers offering greener and more sustainable products.

6.2.2 The market prices for, and volumes of, electricity and heat produced by Vulcan Group's renewable energy business

In addition to its lithium business, Vulcan Group plans to be a net producer of renewable energy, intending to earn revenues from the sale of electricity and heat from its geothermal plants in Germany. Vulcan Group currently intends to:

- sell the electricity produced by the geothermal plants to the grid at the feed-in tariff or higher market prices; and
- utilise a portion of the heat produced by the geothermal plants for its lithium extraction operations, with the remainder sold directly to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses.

Vulcan Group's results of operations could therefore be affected by the feed-in tariff for electricity sold to the grid, as well as the negotiated price for heat.

The German Renewable Energy Act (*Erneuerbare-Energien-Gesetz*) ("**EEG**"), as described in more detail in section "10.2.3 Renewable Energies Act (*Gesetz für den Ausbau erneuerbarer Energien*)" of this Prospectus, provides a subsidised remuneration regime for electricity generated and sold to the grid using geothermal resources. Under the EEG as most recently revised in 2024, the existing feed-in tariff (252 EUR/MWh) will reduce by 0.5% each year for new geothermal projects commissioned after 2024; however, once the plant is operational, the applicable tariff will be fixed and guaranteed for 20 years plus the year of commissioning. As the Insheim Plant was commissioned in 2012, the applicable tariff (expiring in 2033) is 252 EUR/MWh, while the applicable tariff for D12 is expected to be approximately 247 EUR/MWh (based on the expected commissioning date in 2027). In periods where spot prices are above the feed-in tariff level, as has recently been the case, Vulcan Group can sell the electricity produced to the grid at the higher spot price, in which case the feed-in tariff acts as a "floor price". After the 20-year remuneration period (or the remaining part of the remuneration period if a geothermal plant was already commissioned), its future revenues for the applicable geothermal plant will depend upon the respective market price for renewable energy. While the applicable feed-in tariff may not offer a risk-adequate return to investors in a stand-alone geothermal

power plant, Vulcan Group's business model, with its lithium and renewable energy businesses, foresees dual revenue sources of which the lithium business is expected to generate the larger revenue share. Following the acquisition of the Insheim Plant in December 2021, Vulcan Group began earning revenues from the sale of electricity from this plant in FY22, with revenues in the six months to 30 June 2022 amounting to EUR 2,977,000, revenues in SFY22 amounting to EUR 3,128,000, revenues in FY23 amounting to EUR 4,036,000 and revenues in H1/FY24 amounting to EUR 2,223,000.

Vulcan Group is currently negotiating heat offtake agreements in a number of additional areas. Heat sold to third-party customers will be the subject of contractual negotiation with such customers, which Vulcan Group expects will primarily comprise local municipalities and businesses in the Upper Rhine Valley. As at the date of this Prospectus, Vulcan Group is in discussions with the City of Landau and ESW to supply geothermal heat generated in Phase One to ESW for sale to its customers for district heating purposes. Remaining heat not used by ESW will be returned to Vulcan Group to generate electricity that will be sold to the network (see section "8.6.3 Heat Offtake Agreements"). Additionally, Vulcan Group has entered into a binding heat offtake agreement with MVV Energie (the start date as well as other conditions of which are currently under discussion) and phased project agreements with Stellantis; however, these agreements are intended to be part of a future phase of production beyond Phase One, with the timing yet to be defined (see section "8.6.3 Heat Offtake Agreements"). Finally, Vulcan has entered into a phased agreement with BASF to develop renewable heat production from brines at Ludwigshafen.

In addition to the Insheim Plant, Vulcan Group expects to earn revenues from the sale of electricity and heat produced by the D12 geothermal plant in Phase One, following its construction and expected commencement of commercial production in 2027 (and potentially from additional geothermal plants in subsequent phases of the Project, subject to funding and development). Vulcan Group's revenues from its renewable energy business are, therefore, expected to grow in line with the increase in capacity, as discussed further in section "6.2.3 Development activities and expansion of installed capacity" below. The volume of electricity and heat produced by Vulcan Group may also be affected by factors including brine flow rates, the efficiency and reliability of Vulcan Group's facilities and infrastructure and any required plant shut-downs for maintenance or other reasons.

Vulcan Group has recently received approval for a EUR 100 million grant by the German Federal Ministry of Economics and Climate Protection for renewable heating. Under the terms of this grant, it is provided in connection with the new renewable heating infrastructure built under the grant that Vulcan Group will no longer sell power at the feed-in tariff rate, but at market rates. The Company believes, subject to further evaluation, that the overall net impact on its business model, with the addition of the grant and the removal of the feed-in tariff, will be a net positive.

6.2.3 Development activities and expansion of installed capacity

As Vulcan Group is currently in the development phase, Vulcan Group's results in future financial years are expected to be influenced by the ramp-up of its development activities and operations and the timing of assets moving to the production phase.

With the Bridging Study completed for Phase One and validation completed on capital expenditure, Vulcan Group is currently progressing a systematic development programme over its project area in the Upper Rhine Valley and intends to move into the execution and construction phase for Phase One shortly, pending successful completion of the Equity Raising and completion of the project-level debt and equity financing process. The success of Vulcan Group's strategy relies upon being able to drill geothermal wells which produce the requisite heat, lithium grades and brine flow rate to economically deliver lithium chloride concentrate, and subsequently battery-quality LHM, in progressively larger quantities.

Vulcan Group is currently developing its Project, which is targeting to commence commercial production from Phase One in 2027. Phase One is planned to comprise the development of: (i) 5 new well sites and 24 new wells, (ii) series of pipelines and distributed power and control (iii) one new geothermal power plant which (together with the existing Insheim geothermal power plant) is planned to have a combined production target of more than 275 GWh/a of energy and more than 560 GWh/a of heat; (iv) one LEP with a targeted production capacity of 24,000 tpa LHM-equivalent of lithium chloride ("LiCl") concentrate; and (iv) one CLP for LHM production, with a targeted production capacity of 24,000 tpa of LHM. Vulcan Group intends to plan further phases across Vulcan Group's licence area (subject to funding), as Vulcan Group plans to grow production in a staged, modular fashion based on increasing demand for lithium and geothermal energy.

In addition to the lithium business, the geothermal plants in Phase One are expected to produce electricity and heat, with Vulcan Group intending to sell electricity to the grid and to sell all heat not used for Vulcan Group's own operations to third parties (as discussed in section "6.2.2 The market prices for, and volumes of, electricity and heat produced by Vulcan Group's renewable energy business").

Vulcan Group's results of operations will be significantly affected by the timing of the construction of its facilities and of its development assets reaching the production phase, especially in the near term, and will be affected by any construction or other delays which may delay Vulcan Group's target for the commencement of commercial production, and may subsequently cause delays to the commencement of commercial delivery under each of Vulcan Group's lithium offtake agreements.

For example, Vulcan Group had experienced some delays on construction of its lithium extraction optimisation plant in Landau ("**LEOP**") due to supply chain disruptions resulting in longer delivery times, which the Company believes have had their roots mainly in the COVID-19 pandemic and Russia-Ukraine Conflict and their respective broader repercussions. Similarly, Vulcan Group's target for the commencement of commercial production from Phase One has been deferred several times, including in the recently announced Bridging Study, and in this Prospectus, linked to various factors, particularly timing of financing processes including public funding schemes, which has delayed the originally scheduled dates of, and may subsequently cause delays to the commencement of commercial delivery under each of Vulcan Group's lithium offtake agreements.

Vulcan Group's revenues may increase substantially in future years as the new plants envisioned in the Project in the Upper Rhine Valley commence commercial production. Vulcan Group is also continually exploring other acquisition and development opportunities in various locations related to Vulcan Group's core expertise of converting geothermal brine to renewable energy and lithium, and the consummation of any further acquisitions or other expansion opportunities could also increase Vulcan Group's installed capacity and revenue (as discussed in section "6.2.5 The impact of acquisitions").

Vulcan Group may derive some revenue in the future from lithium extraction technology licensing agreements, which are currently under discussion with various parties.

6.2.4 Construction costs and increasing operating expenditure

Initially, the Company's costs were primarily administrative and other expenses not directly related to development activity (including non-capitalised staff costs, consulting and legal fees in connection with M&A and other activity, share-based payment expenses, office costs, foreign currency losses and gains and other expenses) as well as capitalised costs relating to obtaining approvals and technical studies in connection with the Project (including 2D and 3D seismic surveys data acquisition), consultant costs and costs related to piloting Vulcan Group's extraction technology.

FY22 was a transformational year for the Company with the acquisition of both the Insheim Plant and of two electric drill rigs and the commencement of construction of the LEOP. From FY22 to date, the two rigs have subsequently undergone refurbishment and the LEOP, which has now been completed, is being used to demonstrate Vulcan Group's adsorption-type direct lithium extraction ("**A-DLE**") and to train the operations team in a pre-commercial setting.

During the FY23 and FY24 (to date), Vulcan Group has continued to develop and construct the central lithium extraction optimisation plant facility in Hoechst, Frankfurt ("**CLEOP**") in order to produce battery quality lithium hydroxide for customers to qualify, to demonstrate the process of conversions the LiCl produced from the Company's upstream operations to battery grade LHM, and to train the operations team in a pre-commercial setting, this plant is currently in the commissioning stages and has recently started to produce the first fully EU domestic lithium hydroxide, from raw materials to final product.

Phase One of the Project has continued to be developed and refined following Vulcan Group's announcement of the Bridging Study, and throughout FY24, up to the date of this Prospectus. Key expenditure has been related to the continuing development of the Phase One Project in general, including, supporting development activities, progressing inhouse and contractor engineering, securing technology partners' participation, and ordering of key long lead items to support the project schedule across drilling (Vercana), ORC (Turboden) and power infrastructure (ABB).

Going forward, as development of the Project ramps up, construction expenses and, in turn, operating expenditure will have a substantial impact on the Company's results. Administrative,

employee benefit and other expenses will continue to be classified as operating expenditure, whereas construction related costs incurred in the construction phase of the project are capitalised as capital expenditures. The majority of Vulcan Group's development costs in the period comprising FY21, FY22, SFY22 and FY23 were capitalised. With the commencement of production, the Company will begin to depreciate the asset value of its plants and the annual depreciation charge is expected to increase significantly as new facilities come into production. The effects of such depreciation may be material given the capital base of the project. See section "8.1.3.3 Validation / New developments since the Bridging Study" for key developments following the Bridging Study.

Lithium extraction operations based on the A-DLE method (such as the Project) have higher capital costs at the outset as compared with other methods of lithium extraction such as hard rock mining, while generally having lower ongoing operating costs than hard rock mining. According to Vulcan Group's models and estimates, capital expenditure of approximately EUR 1,431 million is expected to be required for Phase One of the Project. Total funding requirements also include financing costs as well as additional contingency and standby facilities required by financiers, owner's costs and debt service reserve account (DSRA) and ramp up costs; see section "6.8.2 Capital expenditure" below for a further discussion of Vulcan Group's estimated capital expenditure in connection with the Project.

The financial model for Phase One includes certain contingencies and assumptions and the Company believes that, if the project were to encounter variances during the drilling and construction phase, a certain level of associated cost increases could be absorbed into the Company's financial model without a significant financial impact on the viability of the Project. However, it should be noted that the Project is highly complex which incorporates many different engineering disciplines, and that certain aspects (including, among other things, LHM production via electrolysis) of the project represent new applications of technologies, and therefore there is the potential for unforeseen delays and cost overruns.

Once in the production phase, the cost of producing LHM relative to other production and extraction methods will be a key factor in determining Vulcan Group's profitability. The Company believes that the potential key strategic advantages of the Project underpinning its relatively low estimated operating costs compared to other methods of processing LHM include:

- a low-cost feedstock of brine from Vulcan Group's geothermal plants, which serve the dual purpose of lithium extraction and energy production in the form of renewable electricity and heat;
- the use of low-cost energy (in the form of heat) coming from Vulcan Group's own geothermal plants;
- the use of the A-DLE method to isolate lithium as opposed to using large volumes of chemicals such as sulphuric acid to dissolve a rock feedstock or soda ash for brine; and
- the use of electrolysis to upgrade chloride into a high purity hydroxide using renewable energy, with no heavy reagent usage (such as sodium hydroxide or lime).

According to estimates in the Phase One financial model, if and when Phase One is fully operational, Vulcan Group's LHM production is expected to entail average operating expenditure (excluding corporate overhead costs) in 2030 of approximately EUR 4,030 per tonne of LHM (excluding inflation), with EUR 1,965 per tonne at the LEP and EUR 2,065 per tonne at the CLP (electrolysis). This compares favourably to the current 20-year average realised price forecast (from offtakes and forecast combined) of EUR 29,312 per tonne of LHM which uses an updated basket of price forecasts from three independent market experts.

The principal components of Vulcan Group's operating expenditure for the Project, based on the Bridging Study for Phase One, are expected to include: power, which is estimated to constitute approximately 64% of the geothermal plants' operating costs, 35% of the LEPs' operating and 49% of the CLP's operating costs; Vulcan Group expects to purchase its power requirements (beyond those it can satisfy using its own geothermal power) from the grid, preferably from green energy providers;

- labour costs, which are estimated to comprise approximately 5% of the geothermal plants' operating costs, 12% of the LEPs' operating costs and 15% of the CLP's operating costs;

- maintenance costs, which are estimated to constitute approximately 28% of the geothermal plants' operating costs, 14% of the LEPs' operating costs and 14% of the CLP's operating costs;
- consumables (including materials like filters and membranes and sorbents, which are used in adsorbing lithium from the geothermal brine and purifying the brine), which are estimated to constitute approximately 14% of the LEPs' operating costs; Vulcan Group currently expects to source sorbent through long term fixed contracts (of between 3-5 years) negotiated directly with providers; and
- services, trucking, reagents, water, steam, nitrogen and other costs, which together make up the balance of operating costs.

The operating costs of A-DLE technologies are typically higher than those of solar evaporation of lithium brines, due to their requirement for larger amounts of energy. However, projects based on geothermally heated brines, such as the Project, require less external energy to heat the brines as compared with non-geothermal brines, which may help to lower these costs.

With respect to the geothermal business, approximately 64% of the operating costs are expected to be attributable to power costs, with the balance attributable to labour and maintenance supplies.

The actual costs incurred by Vulcan Group are subject to a variety of factors, including the availability of supply and inflation. Increases in Vulcan Group's variable operating costs will have a negative effect on Vulcan Group's results, while decreases will have a positive effect on Vulcan Group and enhance Vulcan Group's margins (see sections *"1.1.5 Lithium exploration and development companies face risks along the entire value chain to extract and produce lithium, which may result in substantial delays or operational shut-downs, may require significant capital outlays or may result in an inadequate return or loss on invested capital."* and *"1.2.2 The resource estimates relating to Vulcan Group's current and future projects are subject to certain assumptions and interpretations which may prove to be inaccurate. Any material deviations may result in alterations to development plans which may, in turn, adversely affect Vulcan Group's operations."*).

Operating expenditure has increased during the period under review as the Project ramps up, growing from EUR 7.0 million in FY21 to EUR 23.8 million in FY22 to EUR 17.6 million in SFY22 to EUR 44.1 million in FY23, and EUR 24.6 million in H1/FY24, and is discussed further in section *"6.6.2 Development and comparison of the results of operations for H1/FY24, H1/FY23, FY23, SFY22, FY22 and FY21"*.

Operating expenditure is likely to increase substantially over time as additional expenditure (principally employee costs) will be necessary to support the increased levels of activity within the Company, particularly once the Project is in the production phase (commencing with Phase One, which is expected to commence commercial production in 2027). In particular, in order to achieve its development strategy within the targeted timeframe the Company is seeking to further significantly grow its multi-disciplinary team during the coming months and years by adding industry experts in key discipline areas that will be vital to delivering the proposed development plan, and in particular is targeting a significant increase in the number of staff over the next three to five years as it is planned to transition to an execution and production company. Additionally, as more of Vulcan Group's assets reach the production stage, some costs that are currently capitalised during the construction phase are expected to be reflected as operating expenditure on the Company's Consolidated Statement of Profit or Loss and Other Comprehensive Income in the future.

6.2.5 The impact of acquisitions

During and following the periods under review, Vulcan Group has grown through acquisitions, and Vulcan Group may make further acquisitions and investments in the future in line with its growth strategy that may have a significant effect on Vulcan Group's revenue and profitability. These acquisitions include the following:

- In November 2021, Vulcan Group acquired two electric drill rigs which can drill to the target depth required for deep geothermal energy wells in the Upper Rhine Valley of Germany.
- In December 2021, the Company's wholly owned indirect subsidiary VER GEO LIO GmbH ("**VER GEO**") acquired from Pfalzwerke Aktiengesellschaft ("**Pfalzwerke**") 100% of the shares in Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH) for a purchase price of EUR 31.3 million (after purchase price adjustments) (the "**Insheim Acquisition**").
- Effective February 2023, Vulcan Group acquired Comeback Personaldienstleistungen GmbH ("**Comeback**"), to insource drilling personnel capabilities.
- In September 2024, Vulcan Group entered into an agreement to acquire 100% of the shares in geox GmbH ("**geox**") from IKAV Invest S.à r.l. and Geysir Europe GmbH (together the "**IKAV Group**") for a purchase price estimated at EUR 15 million to be paid as a deferred payment. The acquisition of geox is subject to completion, pending certain outstanding transfer procedures.

See section "8.1.2 Recent Corporate Acquisitions" for details of recent corporate acquisitions.

Although Vulcan Group's current operations are focused on the Project in the Upper Rhine Valley of Germany, Vulcan Group is continually exploring other acquisition and development opportunities in various locations, particularly those with significant, established geothermal brine reservoirs and high lithium grades. Vulcan Group's acquisition strategy is focused on opportunities related to Vulcan Group's core expertise of converting geothermal brine to renewable energy and lithium. Although Vulcan Group has not entered into any binding commitments with respect to any such further acquisitions, Vulcan Group's business may expand geographically through acquisition activity in the future.

Vulcan Group uses the purchase method in the initial consolidation of subsidiaries in the course of business combinations. The acquired entity's identifiable assets, liabilities and contingent liabilities are recognised at their acquisition date fair values. Any excess of cost over the acquirer's interest in the fair value of the subsidiary's net identifiable assets is recognised as goodwill. Goodwill is reported in subsequent periods at cost less accumulated impairment losses.

The overall impact of acquisitions on Vulcan Group's financial results is a function of a variety of factors, including acquisition costs, subsequent capital expenditure involved in integration and development and the achievement of any operational efficiencies and synergies across the combined business. Vulcan Group's results of operations may be adversely affected by any delays or difficulties that it encounters in integrating acquisitions into its business, particularly if this results in the diversion of management and key employees from other parts of Vulcan Group's operations. The risk of such adverse effects may be heightened if Vulcan Group completes acquisitions in jurisdictions with which it has less experience. Vulcan Group may also fail to generate expected margins or cash flows, or to realise the anticipated benefits of any acquisitions, including expected operational, revenue, technical, cost and/or other synergies or benefits within anticipated timeframes or at all. In addition, Vulcan Group's assessments of, and assumptions regarding, acquisition targets may prove to be incorrect, and actual results may differ significantly from expectations. Vulcan Group may incur higher than expected capital expenditures and cost in seeking to achieve its growth strategy and it may be unable to realise the anticipated benefits of the capital expenditures and other investments, and may experience longer than anticipated investment payback periods. Vulcan Group may also have reduced amounts of cash available for use towards other initiatives.

6.2.6 Foreign currency exchange rates

Vulcan Group's Consolidated Annual Financial Statements 2021 included in this Prospectus are presented in Australian dollars, which was Vulcan Energy Resources Limited's presentational currency during that financial year. However, Vulcan Group changed its presentational currency to euro with effect from the commencement of FY22, reflecting the focus of Vulcan Group's activities on the European market, its acquisitions of several German-based operating entities and its planned

operations in Europe from which Vulcan Group expects it will generate the majority of its revenue and costs. As a result, Vulcan Group's Consolidated Annual Financial Statements 2022, Consolidated Short Financial Year Financial Statements 2022, Consolidated Annual Financial Statements 2023 and Unaudited Consolidated Interim Financial Statements 2024 included in this Prospectus are presented in Euro.

During the period up to and including FY21, Vulcan Group had significant translational exchange rate risk as a result of its presentational currency being Australian dollars, while its principal business activities are outside of Australia and its operations outside of Australia use currencies other than the Australian dollar, principally euro and the Norwegian krone (relating mainly to the Kuniko business). As a result, fluctuations in foreign currency exchange rates, in particular, the relative strength or weakness of the Australian dollar and euro have, during the periods up to and including FY21, had an impact on Vulcan Group's performance and results of operations. However, with effect from FY22, Vulcan Group's presentational currency has been changed to the euro. Following the change of Vulcan Group's presentational currency to euro, the translational exchange rate risk mainly relates to cash held by Vulcan Group in Australian dollars, as described in section "1.3.4 *Vulcan Group is exposed to foreign currency exchange risks.*".

As Vulcan Group is, apart from the operational Insheim Plant, primarily in the development stage, it has not earned material revenues to date, but if the Project achieves commercial production, Vulcan Group will earn revenues from the sale of LHM, as well as revenues from the sale of electricity and heat from its renewable energy business. Vulcan Group expects that these sales will be principally to European customers and denominated in euro (which is Vulcan Group's presentational currency from FY22), although it is possible that in the future Vulcan Group may export a portion of its LHM outside of Europe, in which case the associated revenues may be denominated in other currencies, principally the US dollar. Vulcan Group's costs have to date been incurred in a combination of Australian dollars, euro and Norwegian krone (relating mainly to the Kuniko business prior to its spin-off by Vulcan Group); however, as the Project ramps up towards construction and production, the majority of Vulcan Group's costs is expected to be incurred in euro. Until the change of Vulcan Group's presentational currency to euro, Vulcan Group's financial performance was, therefore, subject to fluctuations as a result of foreign currency exchange rate movements whenever financial information was translated from non-Australian dollar currencies and, subsequent to the change of Vulcan Group's presentational currency to euro, Vulcan Group's financial performance is subject to the translation of financial information from non-euro currencies.

In addition to the translational impact of exchange rate fluctuations, Vulcan Group is exposed to transactional exchange rate impact, which arises as a result of payments Vulcan Group makes or receives in local currencies. Revenues received by Vulcan Group's subsidiaries are usually but not always received in the same currency as the expenses incurred by such subsidiaries. For FY21 (during which year Vulcan Group did not earn material revenue), approximately 52% of Vulcan Group's revenue was earned in currencies other than Australian dollars and approximately 15% of Vulcan Group's expenses were incurred in currencies other than Australian dollars. For FY22, 2% of Vulcan Group revenue (excluding one off gain on deconsolidation of Kuniko and loss from investment in associate) was earned in currencies other than euros and approximately 38% of Vulcan Group's expenses (excluding income tax expense) were in currencies other than euros. For SFY22, 6% of Vulcan Group revenue was earned in currencies other than euros and approximately 22% of Vulcan Group's expenses (excluding income tax expense) were in currencies other than euros. For FY23, no revenue was earned in currencies other than euros and approximately 16% of Vulcan Group's expenses (excluding income tax expense) were in currencies other than euros. Vulcan Group expects that, going forward, a degree of transactional exchange rate impact will remain as certain materials will need to be imported from outside the Eurozone, with costs in currencies other than euro. Moreover, pricing under the lithium offtake agreements concluded by Vulcan Group is based on market prices, calculated by reference to certain indices. The indices commonly used are PRA contract indices as provided by, for example, BMI or Fastmarkets. These indices are currently typically quoted in US dollars, creating a transactional exchange rate risk on Vulcan Group as described in section "1.3.4 *Vulcan Group is exposed to foreign currency exchange risks.*". While Vulcan Group expects that by the time it commences commercial production indices quotes in euro may become available for the European market, there can be no assurance that this will be the case. Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

6.2.7 Vulcan Group's financing arrangements

Historically, Vulcan Group's finance costs have been limited. However, Vulcan Group expects to incur increasing levels of finance costs as a result of the construction and development of the Project.

According to Vulcan Group's models and estimates total Phase One capital expenditure is expected to amount to approximately EUR 1,431 million. Total funding requirements also include financing costs of approximately EUR 270 million, additional contingency and standby facilities required by financiers of approximately EUR 241 million, owner's costs of approximately EUR 180 million, and debt service reserve account (DSRA) and ramp up costs of approximately EUR 103 million. On the basis that subsequent phases are targeted to achieve similar production levels as, and in addition to those of, Phase One, the Company currently anticipates a materially similar additional amount to be required for future phases (subject to the completion of a definitive feasibility study). However, as the Company has not completed a definitive feasibility study in relation to the Project's future phases, there remains significant uncertainty regarding the funding requirements for future phases beyond Phase One. The exact amount of capital expenditure required for future phases will be refined as the Company advances the Project. Vulcan Group intends to plan further phases across its licence areas, as Vulcan Group plans to grow production in a staged, modular fashion. The ability to develop the Project beyond Phase One will depend on the availability of future funding sources.

Vulcan Group intends to fund the planned investments to implement Phase One of the Project through a combination of debt financing at the project level as well as equity financing at the project and Company level. Vulcan Group has appointed BNP Paribas to advise on the project level equity and debt financing process.

With respect to debt financing at the project level, Vulcan Group has received a conditional commitment letter from a number of institutions (including Export Finance Australia and commercial banks) covering a debt financing amount of EUR 879 million. This commitment follows approval received from European Investment Bank's (EIB) Board to participate in the Project up to a EUR 500 million lending envelope (including targeting up to EUR 250 million direct lending). Vulcan Group is seeking additional approvals from Export Development Canada (EDC), Bpifrance AE, the Italian export credit agency (SACE) and other commercial banks to participate in the debt financing, to reach a target total debt package commitment of approximately EUR 1.5 to 1.6bn (together, the **"Envisaged Debt Financing"** in the first half of 2025. The Envisaged Debt Financing is, however, subject to finalisation, including alignment of key outstanding matters, credit committee and/or board approval, definitive agreements, and satisfaction of conditions precedent.

The Envisaged Debt Financing is, however, subject to finalisation, including alignment of key outstanding matters, credit committee and/or board approval, definitive agreements, and satisfaction of conditions precedent.

With respect to equity financing, Vulcan Group targets gross proceeds of approximately EUR 625 – 725 million at the project and Company level (the **"Envisaged Equity Financing"**) which shall also include the proceeds arising under this Equity Raising (as defined below) and certain public grants. Vulcan Group has received a range of non-binding offers from potential strategic partners at both the Company and project level for the Envisaged Equity Financing (together with the proceeds arising under this Equity Raising (as defined below) and certain public grants), which it continues to assess, and Vulcan Group is currently targeting to finalise agreements for the Envisaged Equity Financing the first half of 2025.

Further detail regarding the Company's proposed financing arrangements for Phase One is set out, see section *"8.1.3.5 Funding on Company Level and on Project Level"*.

Vulcan Group may also consider the bond market once in production, in view of the increasing market demand for bonds that meet Environmental, Social, and Governance (**"ESG"**) criteria and the availability of longer-term yields in the bond market as compared to project finance (high yield) bonds. In October 2024, Vulcan Group's Sustainability and ESG Framework has been assessed by leading independent ratings agency, S&P Global Ratings, and been awarded a "Dark Green" rating overall and, in December 2023, ERM has completed its environmental and social impact assessment (**"ESIA"**) for Phase One of the Project. The ESIA is a prerequisite to the raising of sustainable or "green" debt finance and is an important third-party validation of the sustainability credentials of the Project. The ESIA was updated on 16 September 2024.

The Company expects that, going forward, Vulcan Group will have a material interest expense a portion of which is, and future portions of which may be, a variable rate. As such, the amount of interest payable by the Company would ultimately be a function of the prevailing interest rates. A

material increase in interest rates during the development phase or once commercial production commences would lead to a higher interest expense for Vulcan Group (see section "1.3.2 Vulcan Group has entered into a credit facility and plans to enter into significant debt financing arrangements in the short-term pursuant to which it will have to bear significant debt financing costs which may further increase in case of an increase in the interest rates. As it is envisaged to incur significant additional debt in the future, the Company expects that its debt financing costs will further increase in the future."). In the absence of any material revenue before the commencement of material commercial production, these finance costs may generate additional losses before taxation. These losses may be compounded if the Company is required to incur more debt than currently expected (for example, if the Company is required to finance cost overruns in connection with the Project). Any debt facilities entered into may also impose financial or other covenants on Vulcan Group (see section "1.3.3 Vulcan Group's existing debt financing arrangements contain and its future debt financing arrangements, once definitive, are expected to contain restrictive covenants, including change of control provisions, which may result in a repayment risk for the debt financings at the project level.").

6.3 Recent Accounting Pronouncements

Vulcan Group has adopted AASB 16 from 1 July 2019. AASB 16 replaces AASB 117 'Leases' and for lessees eliminates the classifications of operating leases and finance leases. Except for short-term leases and leases of low-value assets, right-of-use assets and corresponding lease liabilities are recognised in the statement of financial position. Straight-line operating lease expense recognition is replaced with a depreciation charge for the right-of-use assets (included in operating costs) and an interest expense on the recognised lease liabilities (included in finance costs). In the earlier periods of the lease, the expenses associated with the lease under AASB 16 will be higher when compared to lease expenses under AASB 117. However, EBITDA (earnings before interest, tax, depreciation and amortisation) results improve as the operating expense is now replaced by interest expense and depreciation in profit or loss. For classification within the statement of cash flows, the interest portion is disclosed in operating activities and the principal portion of the lease payments are separately disclosed in financing activities. For lessor accounting, AASB 16 does not substantially change how a lessor accounts for leases. The adoption of AASB 16 has not have a material impact on Vulcan Group given the low level of leases within Vulcan Group.

Australian Accounting Standards and Interpretations relevant to Vulcan Group that have recently been issued or amended but are not yet mandatory (including amendments to AASB 17, AASB 2020-1, AASB 2020-6, AASB 2021-2 and IAS 12 all of which apply to Vulcan Group as from 1 January 2023), have not been adopted by Vulcan Group for the annual reporting period ended 31 December 2022.

6.4 Segment information

For FY21 and following the acquisition of a 100% interest in Vulcan Energy Resources Pty Ltd (later renamed Vulcan Energy Resources Europe Pty Ltd) which held the Project in the Upper Rhine Valley of Germany on 4 September 2019, it was determined that Vulcan Group operated in three operating segments: lithium chemicals and geothermal renewable energy exploration in Germany; base metals exploration in Norway; and administration. Beginning in FY22, the Company changed its operating segments to three segments based on geographical location: Germany, Other European countries and Australia. The "Other European countries" segment includes Italy, France and Norway (including Vulcan Group's minority interest in Kuniko, giving it exposure to base metals exploration in Norway).

Table 10 shows the revenues of Vulcan Group for FY21, FY22, SFY22, FY23 and H1/FY24 for each of the three segments.

Table 10: Revenues by segment

Segment	H1/FY24 (unaudited) EUR	H1/FY23 (unaudited) EUR	FY23 (audited) EUR	SFY22 (audited) EUR	FY22 (audited) EUR	FY21 (audited) A\$
Germany ⁽¹⁾	13,306,000	10,804,000	26,460,000	7,479,000	8,011,000	327,380
Other European Countries ⁽²⁾	-	-	-	-	-	-
Australia ⁽³⁾	91,000	248,000	391,000	211,000	1,631,000	304,162

Total	13,397,000	11,052,000	26,851,000	7,690,000	9,642,000	631,542

- (1) Until the end of FY21, this segment was referred as "Exploration Germany".
(2) Until the end of FY21, this segment was referred as "Exploration Norway".
(3) Until the end of the end of FY21, this segment was referred as "Administration" and, until the end of FY22, as "Administration Australia".

See note 3 to each of the Consolidated Annual Financial Statements for FY21, FY22, SFY22, FY23 and in note 2 to the Unaudited Consolidated Interim Financial Statements 2024 for H1/FY24 for further detail with respect to segment performance during the periods under review.

6.5 Description of key line items

6.5.1 Revenue from continuing operations

Vulcan Group is currently in the development phase and, therefore, did not earn material revenue during the periods under review (save in respect of revenues from the Insheim Plant and from the outsourcing of drilling personnel, as discussed below). Prior to FY22, all revenue earned by Vulcan Group during the periods under review was classified as "other income", albeit in the Consolidated Annual Financial Statements 2021 the line item "other income" appeared under the heading "revenue from continuing operations".

Following the acquisition of the Insheim Plant in December 2021, Vulcan Group has commenced earning revenues from the sale of electricity, which from FY22 is classified as "revenue from continuing operations". In addition, revenue from continuing operations also includes revenue from the outsourcing of drilling personnel through Comeback (acquired by Vulcan Group effective February 2023) since FY23, and from the external businesses Vulcan Energy Subsurface Solutions GmbH ("**VESS**", which was subsequently merged with and into Vulcan Energie) and Vulcan Energy Engineering GmbH ("**VEE**") (both acquired by Vulcan Group in July 2021), since FY22. If and when the Project reaches commercial production (with Phase One commercial production currently targeted in 2027), Vulcan Group intends to earn revenues both from the sale of LHM from its lithium business and the sale of electricity and heat from its renewable energy business.

6.5.2 Other income

Other income comprises principally government grants, research and development tax incentives and funds received from EIT InnoEnergy towards development of the Project. Up until (and including) FY21, finance income such as interest revenue was also classified as "other income".

Dividends from equity investments are recognised in the profit or loss as other income when Vulcan Group's right to receive payments is established.

6.5.3 Finance Income

Finance income relates to interest revenue.

Interest revenue is recognised as interest accrued using the effective interest method. This is a method of calculating the amortised cost of a financial asset and allocating the interest income over the relevant period using the effective interest rate, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to the net carrying amount of the financial asset.

Up until (and including) FY21, finance income such as interest revenue was classified as "other income" and, therefore, was not presented separately in the Company's Statement of Profit or Loss and Other Comprehensive Income.

6.5.4 Gain on discontinuation of use of the equity method of accounting for investments

In FY23, Vulcan Group recorded a EUR 3,874,000 gain on discontinuation of use of the equity method of accounting for investments, attributable to the fair value of Vulcan Group's residual interest in Kuniko following the discontinuation of use of the equity method as of 17 July 2023. The change in the accounting method was due to the reduction of Vulcan group's shareholding in Kuniko to 19% due to dilution as a result of capital increases.

6.5.5 Gain on deconsolidation

In FY22, Vulcan Group recorded a EUR 1,975,185 gain on deconsolidation, attributable to the fair value of Vulcan Group's residual interest in Kuniko following its spin-off.

6.5.6 Share of loss from equity accounted investments

In FY23, Vulcan Group recorded a EUR 456,000 share of loss from equity accounted investments, attributable primarily to the share of loss in Kuniko for the period 1 January 2023 to 17 July 2023 as from when Vulcan Group's participation was accounted for at fair value. In FY22, Vulcan Group recorded a EUR 495,000 share of loss from equity accounted investments, attributable primarily to the share of loss in Kuniko for the period 17 August 2021 to 30 June 2022 following the spin-off of Kuniko by the Company.

6.5.7 Other own work capitalised

Other own work capitalised comprises services provided by VEE and VESS to Vulcan Energie which have been capitalised to exploration and evaluation expenditure and property, plant and equipment. Further capitalization was done for Vercana staff expenses for the refurbishment of the drill rigs. Other own work capitalised does not relate to any external revenue or any profit margin charge to intercompany transactions.

6.5.8 Raw materials and purchased services

During the periods under review, Vulcan Group incurred expenses for raw materials and purchased services, including purchased services relating to the businesses of VESS and VEE acquired by Vulcan Group in July 2021 as well as raw materials and purchased services in connection with the operation of the Insheim Plant and the Project.

6.5.9 Finance costs

Finance cost is comprised of interest on leases Vulcan Group has as well as interest expense.

6.5.10 Administrative expenses

Administrative expenses comprise accounting, audit and company secretarial fees, travel expenses and general and administrative expenses. Prior to the Consolidated Annual Financial Statements 2023, administrative expenses were recorded as a separate line item in the Group's consolidated statement of profit or loss. In the Consolidated Annual Financial Statements 2023 and the Unaudited Consolidated Interim Financial Statements 2024, administrative expenses have been included within the "other expenses" line item.

6.5.11 Compliance and regulatory expenses

Compliance and regulatory expenses comprise ASX, ASIC, FSE and audit and taxation advice costs. Prior to the Consolidated Annual Financial Statements 2023, compliance and regulatory expenses were recorded as a separate line item in the Group's consolidated statement of profit or loss. In the Consolidated Annual Financial Statements 2023 and the Unaudited Consolidated Interim Financial Statements 2024, compliance and regulatory expenses have been included within the "other expenses" line item.

6.5.12 Depreciation and amortisation

During the periods under review, depreciation related to plant & equipment, software, right of use assets and intangible assets. From the acquisition of the Insheim Plant in December 2021, depreciation costs included depreciation costs associated with the purchase price allocation of Insheim Plant equipment. Once Vulcan Group has commenced commercial production from other assets currently under development, it is expected that depreciation will also include depreciation of those production assets and capitalised expenses.

Once assets are available for use, depreciation is calculated using the straight-line method to allocate asset costs over their estimated useful lives, as follows:

Software: 3 - 5 years

Plant & Equipment: 2-20 years

6.5.13 Consulting and legal fees

Consulting and legal fees comprise corporate advisory fees, consulting fees and legal fees. Prior to the Consolidated Annual Financial Statements 2023, consulting and legal fees were recorded as a separate line item in the Group's consolidated statement of profit or loss. In the Consolidated Annual Financial Statements 2023 and the Unaudited Consolidated Interim Financial Statements 2024, consulting and legal fees have been included within the "other expenses" line item.

6.5.14 Employee benefit expenses

Employee benefit expenses comprise salary and wages and associated costs.

6.5.15 Investor relations

Investor relations expenses comprise fees paid to media companies as well as share-based payments to investor publications. Prior to the Consolidated Annual Financial Statements 2023, investor relations expenses were recorded as a separate line item in the Group's consolidated statement of profit or loss. In the Consolidated Annual Financial Statements 2023 and the Unaudited Consolidated Interim Financial Statements 2024, investor relations expenses have been included within the "other expenses" line item.

6.5.16 Occupancy costs

Occupancy costs comprise rent of office premises. Prior to the Consolidated Annual Financial Statements 2023, occupancy costs were recorded as a separate line item in the Group's consolidated statement of profit or loss. In the Consolidated Annual Financial Statements 2023 and the Unaudited Consolidated Interim Financial Statements 2024, occupancy costs have been included within the "other expenses" line item.

6.5.17 Impairment expense

Impairment expense comprises impairments to the Company's exploration and evaluation assets, principally for relinquished exploration licences in Norway.

6.5.18 Loss on disposal of financial assets

During the period under review, loss on disposal of financial assets comprises principally losses on the disposal of liquid bonds in which the Company invested as part of its cash management.

6.5.19 Share-based payment expense

Share-based payment expense comprises share-based payment expenses recognised in the statement of profit or loss and other comprehensive income in respect of certain shares issued to outside parties and share-based remuneration provided to employees, consultants and directors.

6.5.20 Other expenses

Prior to the Consolidated Annual Financial Statements 2023, other expenses comprised office expenses and IT costs. In the Consolidated Annual Financial Statements 2023 and the Unaudited Consolidated Interim Financial Statements 2024, other expenses also include, among other things, administrative expenses, compliance and regulatory expenses, consulting and legal fees, investor relations expenses, and occupancy costs.

6.5.21 Foreign currency (losses) / gain

Foreign currency (losses) / gain represent losses and gains resulting from the settlement of foreign currency transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies.

6.5.22 Income tax benefit/expense

Income tax expense comprises current income tax expense and deferred tax expense.

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

Deferred tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year as well as unused tax losses.

Current and deferred income tax expense (income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

6.6 Results of operations

6.6.1 Overview

The table below presents Vulcan Group's results of operations for the periods indicated, which information has been extracted without material adjustment from the historical financial information set out in the Consolidated Annual Financial Statements which are reproduced in this Prospectus beginning on page F-1.

Through the end of FY21, Vulcan Group's presentational currency was the Australian dollar. With effect from FY22, Vulcan Group changed its presentational currency to euro, reflecting the focus of Vulcan Group's activities on the European market, its acquisitions of several German-based operating entities and its planned operations in Europe from which Vulcan Group expects it will generate the majority of its revenue and costs. Therefore, the financial information for FY21, which is presented in Australian dollars, is not directly comparable with the financial information for subsequent financial periods, which is presented in euro. To aid the comparison of the results of operations for FY21 to the results of operations for FY22, SFY22, FY23 and H1/FY24 below, the information in respect of FY21 has been presented in both Australian dollars and euro in section "6.6.2 Development and comparison of the results of operations for H1/FY24, H1/FY23, FY23, SFY22, FY22 and FY21", with the information presented in euro based on a translation of the original Australian dollar information using the average daily exchange rate during the period, being A\$ 1/ EUR 0.6260.

In 2022, the Company changed its financial year end from 30 June to 31 December in order to align with the financial year commonly used in Germany (i.e. the calendar year), following the Company's initial listing on the regulated market (*Regulierter Markt*) of the FSE and in line with the Company's focus on developing its European renewable energy and lithium business. As a consequence, SFY22 consists of the six-month period from 1 July 2022 to 31 December 2022 and therefore is not fully comparable with the prior and future financial years of the Company, which cover 12-month periods. Additionally, as Vulcan Group only acquired the Insheim Plant in December 2021, comparability of FY22 to any subsequent financial year is limited by the fact that FY22 did not include the results of the Insheim Plant for most of the financial year.

Table 11: Consolidated statements of profit or loss

	H1/FY24 EUR	H1/FY23 EUR	FY23 EUR	SFY22 EUR	FY22 EUR	FY21 A\$
	(unaudited)	(unaudited)	(audited)	(audited)	(audited)	(audited)
Revenue from continuing operations	3,753,000	3,104,000	6,783,000	3,622,000	3,799,000	-
Other income	297,000	461,000	1,191,000	213,000	317,000	631,542 ⁽¹⁾
Finance income	1,005,000	1,560,000	3,558,000	615,000	350,000	-
Gain on deconsolidation	-	-	-	-	1,975,000	-
Gain on discontinuation of equity accounting	-	-	3,874,000	-	-	-

	H1/FY24 EUR	H1/FY23 EUR	FY23 EUR	SFY22 EUR	FY22 EUR	FY21 A\$
	(unaudited)	(unaudited)	(audited)	(audited)	(audited)	(audited)
Share of loss from equity accounted investments	(50,000)	(465,000)	(456,000)	(249,000)	(495,000)	-
Other own work capitalised	9,347,000	7,487,000	18,877,000	3,489,000	3,696,000	-
Raw materials and purchased services	(555,000)	(1,627,000)	(2,593,000)	(3,119,000)	(2,512,000)	-
Finance cost	(89,000)	(118,000)	(172,000)	(177,000)	(155,000)	-
Administrative expenses	-(2)	-(2)	-(2)	(2,127,000)	(3,790,000)	(888,145)
Compliance and regulatory expenses	-(2)	-(2)	-(2)	(304,000)	(729,000)	(551,639)
Consulting and legal fees	-(2)	-(2)	-(2)	(1,362,000)	(4,099,000)	(1,922,771)
Depreciation and amortisation	(3,336,000)	(2,942,000)	(5,869,000)	(2,299,000)	(2,629,000)	(131,522)
Employee benefit expenses	(19,748,000)	(12,933,000)	(30,170,000)	(8,097,000)	(7,793,000)	(624,829)
Investor relations	-(2)	-(2)	-(2)	(231,000)	(615,000)	(410,338)
Occupancy costs	-(2)	-(2)	-(2)	(1,265,000)	(498,000)	(55,930)
Impairment expenses	-	(1,040,000)	(1,144,000)	-	(36,000)	(228,663)
Share-based payments expense	(1,151,000)	(905,000)	(1,688,000)	(711,000)	(3,637,000)	(6,517,484)
Loss on disposal of financial assets	-	-	-	-	(745,000)	-
Other expenses	(9,071,000) ⁽³⁾	(9,349,000) ⁽³⁾	(21,294,000) ⁽³⁾	(1,446,000)	(1,175,000)	(120,877)
Foreign currency (losses)/gain	450,000	772,000	299,000	(105,000)	285,000	76,042
Loss before income tax benefit/expense	(19,148,000)	(15,995,000)	(28,804,000)	(13,553,000)	(18,486,000)	(10,744,614)
Income tax benefit / (expense)	(198,000)	411,000	1,841,000	103,000	(365,000)	-
Loss after income tax for the period	(19,346,000)	(15,584,000)	(26,963,000)	(13,450,000)	(18,851,000)	(10,744,614)

	H1/FY24 EUR	H1/FY23 EUR	FY23 EUR	SFY22 EUR	FY22 EUR	FY21 A\$
	(unaudited)	(unaudited)	(audited)	(audited)	(audited)	(audited)
Other comprehensive income/(loss)	(968,000)	(3,394,000)	(4,314,000)	(1,648,000)	6,990,000	(99,993)
Total comprehensive loss attributable to the owners of Vulcan Energy Resources Limited	(20,314,000)	(18,978,000)	(31,277,000)	(15,098,000)	(11,861,000)	(10,844,607)

- (1) Includes finance income of A\$ 120,678 in FY21 which is included in the line item "other income" in the Consolidated Annual Financial Statements 2021. Since FY22, Vulcan Group presents finance income separately from "other income"
- (2) Included in "other expenses".
- (3) Includes, among other things, administrative expenses, compliance and regulatory expenses, consulting and legal fees, investor relations expenses, and occupancy costs which are not recorded separately in FY23 and H1/FY24.

6.6.2 Development and comparison of the results of operations for H1/FY24, H1/FY23, FY23, SFY22, FY22 and FY21

6.6.2.1 Revenue from continuing operations

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Revenue from continuing operations increased by EUR 649,000, or 21%, to EUR 3,753,000 in H1/FY24 as compared to EUR 3,104,000 in H1/FY23 and was primarily composed of revenues generated by the sale of electricity produced by the Insheim Plant and the outsourcing of drilling personnel.

FY23 (audited)

Revenue from continuing operations amounted to EUR 6,783,000 in FY23 and was primarily composed of revenues generated by the sale of electricity produced by the Insheim Plant and the outsourcing of drilling personnel.

SFY22 (audited)

Revenue from continuing operations amounted to EUR 3,622,000 in SFY22 and was primarily composed of revenues generated by the sale of electricity produced by the Insheim Plant, along with some revenue from engineering services provided to external clients.

FY22 (audited) vs. FY21 (audited)

Revenue from continuing operations was EUR 3,799,000 in FY22, primarily driven by revenues from sale of goods in the amount of EUR 2,977,000 (representing the sale of electricity produced by the Insheim Plant following its acquisition by the Company in December 2021) and, to a lesser extent, revenue from the rendering of services (representing revenues from services performed by VEE and VESS for external parties). Vulcan Group did not have revenue from continuing operations in FY21.

6.6.2.2 Other Income

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Other income decreased by EUR 164,000, or 36%, to EUR 297,000 in H1/FY24 as compared to EUR 461,000 in H1/FY23 and was primarily composed of tax refunds.

FY23 (audited)

Other income amounted to EUR 1,191,000 in FY23 and was primarily composed of government grants (EUR 532,000) and other income (EUR 659,000) including proceeds from the sale of fixed assets and reversal of provisions.

SFY22 (audited)

Other income amounted to EUR 213,000 in SFY22 and was primarily composed of government grants.

FY22 (audited) vs. FY21 (audited)

Other income for FY22 was EUR 317,000, consisting of government grants, which amount was similar to the amount of other income in FY21 (being A\$510,864 (EUR 320,000; unaudited), excluding finance income in an amount of A\$120,678), which consisted of R&D tax incentives and InnoEnergy funding.

6.6.2.3 Finance Income

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Finance income decreased by EUR 550,000, or 36%, to EUR 1,005,000 in H1/FY24 as compared to EUR 1,560,000 in H1/FY23 and was primarily composed of interest income earned from cash held.

FY23 (audited)

Finance income amounted to EUR 3,558,000 in FY23 and was primarily composed of interest earned on cash held.

SFY22 (audited)

Finance income amounted to EUR 615,000 in SFY22 and was primarily composed of interest earned on cash held.

FY22 (audited) vs. FY21 (audited)

Finance income, comprised of interest earned on cash held, increased by EUR 274,446 or 363%, to EUR 350,000 in FY22 from A\$120,678 (EUR 75,554; unaudited) (included in the line item "other income" in the Consolidated Annual Financial Statements 2021).

6.6.2.4 Gain on discontinuation of use of the equity method of accounting for investments

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Vulcan Group did not record a gain on discontinuation of use of the equity method of accounting for investments in H1/FY24 and the H1/FY23.

FY23 (audited)

In FY23, Vulcan Group recorded a one-off gain on discontinuation of use of the equity method of accounting for investments of EUR 3,874,000, attributable to the fair value of Vulcan Group's residual interest in Kuniko following the discontinuation of use of the equity method as of 17 July 2023.

SFY22 (audited)

Vulcan Group did not record a gain on discontinuation of use of the equity method of accounting for investments in SFY22.

FY22 (audited) vs. FY21 (audited)

Vulcan Group did not record a gain on discontinuation of use of the equity method of accounting for investments in either FY22 or FY21.

6.6.2.5 Gain on deconsolidation

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Vulcan Group did not record a gain on deconsolidation in H1/FY24 and H1/FY23.

FY23 (audited)

Vulcan Group did not record a gain on deconsolidation in FY23.

SFY22 (audited)

Vulcan Group did not record a gain on deconsolidation in SFY22.

FY22 (audited) vs. FY21 (audited)

In FY22, Vulcan Group recorded a one-off EUR 1,975,185 gain on deconsolidation, attributable to the fair value of Vulcan Group's residual interest in Kuniko following its spin-off. It did not record a gain on deconsolidation in FY21.

6.6.2.6 Share of loss from equity accounted investments

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Share of loss from equity accounted investments decreased by EUR 415,000, or 89%, to EUR 50,000 in H1/FY24 as compared to EUR 465,000 in H1/FY23

FY23 (audited)

Share of loss from equity accounted investments amounted to EUR 456,000 in FY23 and was primarily composed of Vulcan Group's share of Kuniko Limited running costs in developing its Norway assets.

SFY22 (audited)

Share of loss from equity accounted investments amounted to EUR 249,000 in SFY22 and was primarily composed of Vulcan Group's share of Kuniko Limited running costs in developing its Norway assets.

FY22 (audited) vs. FY21 (audited)

In FY22, Vulcan Group recorded a EUR 495,000 share of loss from equity accounted investments, attributable primarily to the share of loss in Kuniko for the period 17 August 2021 to 30 June 2022 following the spin-off of Kuniko by the Company completed in August 2021. It did not record a share of loss from equity accounted investments in FY21.

6.6.2.7 Other own work capitalised

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Other own work capitalised increased by EUR 1,860,000, or 25%, to EUR 9,347,000 in H1/FY24 as compared to EUR 7,487,000 in H1/FY23 and was primarily composed of employee benefits expenses capitalised to exploration and evaluation expenditure and property, plant and equipment.

FY23 (audited)

Other own work capitalised amounted to EUR 18,877,000 in FY23 and was primarily composed of services provided by VEE and VESS to Vulcan Energie. Such services related primarily to the engineering and design of the LEOP (by VEE), the interpretation of seismic data (by VESS), staff costs of Vercana relating to the refurbishment of the two electric drill rigs, staff costs of Vulcan Energie relating to various projects and the partial capitalisation of the Company's managing director's costs for time spent on major projects.

SFY22 (audited)

Other own work capitalised amounted to EUR 3,489,000 in SFY22 and was primarily composed of services provided by VEE and VESS to Vulcan Energie. Such services related primarily to the engineering and design of the LEOP (by VEE) and the interpretation of seismic data (by VESS).

FY22 (audited) vs. FY21 (audited)

In FY22, Vulcan Group recorded other own work capitalised of EUR 3,696,000, comprising services provided by VEE and VESS to Vulcan Energie. Such services related primarily to the engineering and design of the LEOP (by VEE) and the interpretation of seismic data (by VESS). Vulcan Group did not record other own work capitalised in FY21.

6.6.2.8 Raw materials and purchased services

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Expenses for raw materials and purchased services decreased by EUR 1,072,000, or 66%, to EUR 555,000 in H1/FY24 as compared to EUR 1,627,000 in H1/FY23 and were primarily composed of materials purchased for the operations of the Insheim Plant and external services purchased.

FY23 (audited)

Expenses for raw materials and purchased services amounted to EUR 2,593,000 in FY23 and were primarily composed of materials purchased for the operations of the Insheim Plant and external services purchased.

SFY22 (audited)

Expenses for raw materials and purchased services amounted to EUR 3,119,000 in SFY22 and were primarily composed of materials purchased for the operations of the Insheim Plant and external services purchased.

FY22 (audited) vs. FY21 (audited)

Expenses for raw materials and purchased services amounted to EUR 2,512,000 in FY22 and were primarily composed of materials used in the operation of the Insheim Plant following its acquisition by Vulcan Group in December 2022 and services purchased from VESS and VEE (other than those which were capitalised and recorded to "other own work capitalised"). Vulcan did not incur any expenses for raw materials and purchased services in FY21.

6.6.2.9 Finance cost

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Finance cost decreased by EUR 29,000, or 25%, to EUR 89,000 in H1/FY24 as compared to EUR 118,000 in H1/FY23, primarily composed of interest on lease.

FY23 (audited)

Finance cost amounted to EUR 172,000 in FY23 and was primarily composed of interest on leases.

SFY22 (audited)

Finance cost amounted to EUR 177,000 in SFY22 and was primarily composed of interest on EUR cash balances held due to negative interest rates during the period, and interest on leases.

FY22 (audited) vs. FY21 (audited)

Finance cost amounted to EUR 155,000 in FY22 and was primarily composed of interest on EUR cash balances held due to negative interest rates during the period, and interest on leases. Vulcan did not separately recognise finance costs in FY21.

6.6.2.10 Administrative expenses

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Administrative expenses increased by EUR 277,000, or 12%, to EUR 2,564,000 in H1/FY24 as compared to EUR 2,287,000 in H1/FY23, in each case recorded under "Other expenses" (see below), and were primarily composed of expenses connected with the operation of VESS and VEE and the Insheim Plant, vehicle, insurances and travel expenses.

FY23 (audited)

Administrative expenses amounted to EUR 4,600,000 in FY23, recorded under "Other expenses" (see below), and were primarily composed of expenses connected with the operation of VESS and VEE and the Insheim Plant, travel, and insurances.

SFY22 (audited)

Administrative expenses amounted to EUR 2,127,000 in SFY22 and were primarily composed of expenses connected with the operation of VESS and VEE and the Insheim Plant, as well as accounting, audit and company secretarial fees, insurances and travel expenses.

FY22 (audited) vs. FY21 (audited)

Administrative expenses increased by EUR 3,234,000 or 582%, to EUR 3,790,000 in FY22 from A\$888,145 (EUR 556,000; unaudited) in FY21. This increase was primarily driven by general expenses connected with the ramp-up of Vulcan Group's operations in Germany, including

administrative expenses connected with the operation of VESS and VEE acquired in July 2021 and the Insheim Plant acquired in December 2021, as well as associated increases in accounting, audit and company secretarial fees and travel expenses.

6.6.2.11 Compliance and regulatory expenses

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Compliance and regulatory expenses decreased by EUR 154,000, or 28% to, EUR 389,000 in H1/FY24 as compared to EUR 543,000 in H1/FY23, in each case recorded under "Other expenses" (see below), and were primarily composed of audit fees, ASX and ASIC compliance fees, and share registry fees.

FY23 (audited)

Compliance and regulatory expenses amounted to EUR 800,000 in FY23, recorded under "Other expenses" (see below), and were primarily composed of audit fees, ASX and ASIC compliance fees, and share registry fees.

SFY22 (audited)

Compliance and regulatory expenses amounted to EUR 304,000 in SFY22 and were primarily composed of costs connected with the Company's ASX and FSE listings.

FY22 (audited) vs. FY21 (audited)

Compliance and regulatory expenses increased by EUR 384,000 or 111%, to EUR 729,000 in FY22 from A\$551,639 (EUR 345,000; unaudited) in FY21. This increase was primarily driven by increased compliance and regulatory costs arising from the dual listing on the ASX and FSE (with the FSE listing completed in February 2022) and an increase in costs associated with equity raising and share placements undertaken during the period.

6.6.2.12 Consulting and legal fees

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Consulting and legal fees decreased by EUR 938,000 or 41%, to EUR 1,327,000 in H1/FY24 as compared to EUR 2,265,000 in H1/FY23, in each case recorded under "Other expenses" (see below), and were primarily composed of professional fees and other costs such as travel and accommodation related to project financing, and by the general ramp-up of Vulcan Group's business.

FY23 (audited)

Consulting and legal fees amounted to EUR 10,700,000 in FY23, recorded under "Other expenses" (see below), and were primarily composed of project financing advisory fees, project finance due diligence costs, legal fees associated with the May 2023 capital raise and consulting fees relating to Vulcan Group's standalone sustainability report, life cycle assessment, and accounting assistance in relation to the purchase price allocation for the Comeback acquisition.

SFY22 (audited)

Consulting and legal fees amounted to EUR 1,362,000 in SFY22 and were primarily composed of legal fees and consulting fees associated with recruitment, corporate advisory and ESG reporting.

FY22 (audited) vs. FY21 (audited)

Consulting and legal fees increased by EUR 2,895,000 or 240%, to EUR 4,099,000 in FY22 from A\$1,922,771 (EUR 1,204,000; unaudited) in FY21. This increase was driven by increases across legal fees, consulting fees and corporate advisory fees associated with the listing of Vulcan Group's shares on FSE in February 2022, costs associated with equity raising and share placements and by the general ramp-up of Vulcan Group's business including the acquisitions of GeoThermal Engineering GmbH ("**GeoT**"), since renamed Vulcan Energy Subsurface Solutions GmbH ("**VESS**") and merged into Vulcan Energie) and gec-co Global Engineering & Consulting-Company GmbH ("**Gec-co**") (now: VEE) in July 2021 and the Insheim Plant in December 2021.

6.6.2.13 Depreciation and amortisation

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Depreciation and amortisation increased by EUR 394,000 or 13%, to EUR 3,336,000 in H1/FY24 as compared to EUR 2,942,000 in H1/FY23, and were primarily composed of depreciation associated with the Insheim plant, as well as the transfer (and commencement of depreciation) of LEOP from assets under construction to plant & equipment during the period.

FY23 (audited)

Depreciation and amortisation amounted to EUR 5,869,000 in FY23, primarily composed of depreciation of right-of-use assets, amortisation of intangible assets and depreciation associated with the Insheim Plant, as well as additions of EUR 66,163,000 for the period related to construction costs towards completion of the LEOP and the CLEOP, refurbishment of two electric drill rigs, acquisition of land relating to upcoming production locations, bridging engineering study costs and engineering works for Phase One plants.

SFY22 (audited)

Depreciation and amortisation amounted to EUR 2,299,000 in SFY22, primarily composed of depreciation associated with the Insheim Plant.

FY22 (audited) vs. FY21 (audited)

Depreciation and amortisation increased by EUR 2,547,000 or 3,106%, to EUR 2,629,000 in FY22 from A\$131,522 (EUR 82,000; unaudited) in FY21. This significant increase was principally driven by the acquisition of the Insheim Plant in December 2021 (which gave rise to EUR 1.2 million in depreciation costs associated with the purchase price allocation of plant equipment) as well as increases in depreciation of intangible assets (primarily intangibles associated with the purchase price allocation of VEE), right of use assets and software.

6.6.2.14 Employee benefit expenses

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Employee benefit expenses increased by EUR 6,815,000 or 53%, to EUR 19,748,000 in H1/FY24 as compared to EUR 12,933,000 in H1/FY23, and were primarily composed of employee costs. The average number of employees (full-time equivalent) increased during the period from approximately 307 in FY23 to 368 throughout H1/FY24. In addition to this, a provision for severance payments of approximately EUR 750,000 were incurred during H1/FY24.

FY23 (audited)

Employee benefit expenses amounted to EUR 30,170,000 in FY23 and were primarily composed of employee costs. During this financial year, the number of employees (full-time equivalent) rose from 184 to 371 due to, inter alia, the acquisition of Comeback resulting in the addition of approximately 46 personnel to Vulcan Group's in-house development drilling team.

SFY22 (audited)

Employee benefit expenses amounted to EUR 8,097,000 in SFY22 and were primarily composed of employee costs. During these six months, the number of employees (full-time equivalent) rose from 129 to 184.

FY22 (audited) vs. FY21 (audited)

Employee benefit expenses increased by EUR 7,402,000 or 1,893%, to EUR 7,793,000 in FY22 from A\$624,829 (EUR 391,000; unaudited) in FY21. This significant increase was principally driven by an increase in employees (full-time equivalent) from 9 as of 30 June 2021 to 129 as of 30 June 2022, primarily driven by the acquisitions of Gec-co (now: VEE), GeoT (renamed: VESS, meanwhile merged into Vulcan Energie) and Natürlich Insheim, as well as recruitment of technical and administrative staff in Germany to accelerate the development of the Project.

6.6.2.15 Investor relations

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Investor relations expenses amounted to EUR 13,000 have remained unchanged in H1/FY24 as compared to the H1/FY23, in each case recorded under "Other expenses" (see below), and were primarily attributable to investor related subscriptions.

FY23 (audited)

Investor relations expenses amounted to EUR 11,000 in FY23, recorded under "Other expenses" (see below), and were primarily attributable to investor related subscriptions.

SFY22 (audited)

Investor relations expenses amounted to EUR 231,000 in SFY22 and were primarily attributable to securities issued to Rosberg X Racing (RXR) pursuant to a partnership agreement and an increase in Vulcan Group's investor base. The partnership agreement (which has meanwhile expired) had been entered into in August 2021 among Vulcan Group and Rosberg X Racing, a company affiliated with sustainability entrepreneur and former Formula One World Champion Nico Rosberg. Under the partnership agreement, Vulcan Group was an official partner of RXR and RXR and Mr Rosberg became shareholders in the Company in return for advertising and promotional rights for the 2021 and 2022 Extreme E racing seasons.

FY22 (audited) vs. FY21 (audited)

Investor relations expenses increased by EUR 358,000 or 139%, to EUR 615,000 in FY22 from A\$410,338 (EUR 257,000; unaudited) in FY21. This increase was principally driven by a partnership agreement with Rosberg X Racing and expansion of the Project and Vulcan Group's investor base.

6.6.2.16 Occupancy costs

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Occupancy costs decreased by EUR 633,000, or 55%, to EUR 524,000 in H1/FY24 from EUR 1,157,000 in H1/FY23, in each case recorded under "Other expenses" (see below), and were primarily composed of reservation costs for Vulcan Group's planned CLP site in Frankfurt, Germany.

FY23 (audited)

Occupancy costs amounted to EUR 2,600,000 in FY23, recorded under "Other expenses" (see below), and were primarily composed of reservation costs for Vulcan Group's planned CLP site in Frankfurt, Germany.

SFY22 (audited)

Occupancy costs amounted to EUR 1,265,000 in SFY22 and were primarily composed of offices in Australia and Germany as well as a laboratory in Germany. Occupancy also includes the reservation fee for land proposed for the construction of Vulcan Group's CLP.

FY22 (audited) vs. FY21 (audited)

Occupancy costs increased by EUR 463,000 or 1,323%, to EUR 498,000 in FY22 from A\$55,930 (EUR 35,000; unaudited) in FY21. This increase was principally due to the lease of additional buildings as part of the acquisitions of VESS and VEE.

6.6.2.17 Impairment expenses

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

There were no impairment expenses in H1/FY24. In H1/FY23 the impairment expenses amounted to EUR 1,040,000, attributable to a one-off impairment for goodwill associated with the Gec-co business (now VEE) which was acquired in 2021.

FY23 (audited)

Impairment expenses amounted to EUR 1,144,000 in FY23 attributable primarily to a one-off impairment for goodwill associated with the Gec-co business (now VEE) which was acquired in 2021.

SFY22 (audited)

There was no impairment in SFY22.

FY22 (audited) vs. FY21 (audited)

Impairment expenses decreased by EUR 107,000 or 75%, to EUR 36,000 in FY22 compared to A\$228,663 (EUR 143,000; unaudited) in FY21. This decrease was primarily due to write downs (related principally to relinquished licences in relation to Vulcan Group's Norwegian assets) incurred in FY21.

6.6.2.18 Share-based payment expense

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Share-based payment expenses increased by EUR 246,000 or 27%, to EUR 1,151,000 in H1/FY24 as compared to EUR 905,000 in H1/FY23, arising primarily from performance rights issued to executives and non-executives in the current and prior financial years.

FY23 (audited)

Share-based payment expenses amounted to EUR 1,688,000 in FY23 arising primarily from performance rights issued to executives and non-executives in the current and prior financial years.

SFY22 (audited)

Share-based payment expenses amounted to EUR 711,000 in SFY22 arising primarily from performance rights issued to executives in the current and prior financial years.

FY22 (audited) vs. FY21 (audited)

Share-based payment expense decreased by EUR 443,000 or 11%, to EUR 3,637,000 in FY22 from A\$6,517,484 (EUR 4,080,000; unaudited) in FY21. This decrease was principally driven by a reduction of the expense relating to historical issues of performance rights in the financial year ended 30 June 2020.

6.6.2.19 Other expenses

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Other expenses increased by EUR 278,000 or 3%, to EUR 9,071,000 in H1/FY24 as compared to EUR 9,349,000 in H1/FY23, arising primarily from consulting and legal fees (EUR 1,327,000), administrative expenses (EUR 2,564,000), occupancy costs (EUR 524,000) and compliance and regulatory costs (EUR 389,000). In the preceding financial years, consulting and legal fees, administrative expenses, occupancy costs, compliance and regulatory costs and investor relations expenses were recorded separately (see section "6.5.20 Other expenses").

FY23 (audited)

Other expenses amounted to EUR 21,294,000 in FY23 arising primarily from consulting and legal fees (EUR 10,700,000), administrative expenses (EUR 4,600,000), investor relations expenses (EUR 11,000), occupancy costs (EUR 2,600,000) and compliance and regulatory costs (EUR 800,000). In the preceding financial years, consulting and legal fees, administrative expenses, occupancy costs, compliance and regulatory costs and investor relations expenses were recorded separately (see section "6.5.20 Other expenses").

SFY22 (audited)

Other expenses amounted to EUR 1,446,000 in SFY22 arising primarily from the ramp-up of Vulcan Group's operations in Germany, including other expenses connected with the operation of VESS and VEE acquired in July 2021 and the Insheim Plant acquired in December 2021.

FY22 (audited) vs. FY21 (audited)

Other expense increased by EUR 1,099,000 or 1,446%, to EUR 1,175,000 in FY22 from A\$ 120,877 (EUR 76,000; unaudited) in FY21. This increase was principally driven by general expenses connected with the ramp-up of Vulcan Group's operations in Germany, including other expenses connected with the operation of VESS and VEE acquired in July 2021 and the Insheim Plant acquired in December 2021.

6.6.2.20 Loss from continuing operations before income tax

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

For the reasons set out above, loss from continuing operations increased by EUR 3,153,000 or 20%, to EUR 19,148,000 in H1/FY24 as compared to EUR 15,995,000 in H1/FY23.

FY23 (audited)

For the reasons set out above, loss from continuing operations amounted to EUR 28,804,000 in FY23.

SFY22 (audited)

For the reasons set out above, loss from continuing operations amounted to EUR 13,553,000 in SFY22.

FY22 (audited) vs. FY21 (audited)

For the reasons set out above, loss from continuing operations before income tax increased by EUR 11,760,000 or 175% from A\$10,744,614 (EUR 6,726,000; unaudited) in FY21 to EUR 18,486,000 in FY22.

6.6.2.21 Income tax benefit/expense

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

Vulcan Group recognised an increase in income tax expense of EUR 609,000 or 148%, to EUR 198,000 in H1/FY24 as compared to an income tax benefit of EUR 411,000 in H1/FY23, and was primarily due to the non-recognition of all available carry forward tax-losses as a deferred tax asset.

FY23 (audited)

Vulcan Group recognised an income tax benefit of EUR 1,841,000 in FY23, primarily due to a prima facie tax benefit on loss before income tax of EUR 8,641,000. The full potential deferred tax assets attributable to tax losses and other temporary differences were not brought to account at 31 December 2023 as the Directors did not consider the realisation of deferred tax assets to be probable at that point in time.

SFY22 (audited)

Vulcan Group recognised an income tax benefit of EUR 103,000 in SFY22, primarily due to movement in deferred tax assets and liabilities arising from differences in depreciation basis of property, plant and equipment.

FY22 (audited) vs. FY21 (audited)

Vulcan Group incurred an income tax expense of EUR 365,000 in FY22, primarily due to taxes related to income from entities acquired during the period (principally Natürlich Insheim, as well as VEE and VESS). Vulcan Group did not incur any income tax expense in FY21.

6.6.2.22 Loss from continuing operations after income tax

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

For the reasons set out above, loss from continuing operations after income tax amounted to EUR 19,346,000 in H1/FY24, an increase of EUR 3,762,000, or 24%, compared to EUR 15,584,000 in H1/FY23.

FY23 (audited)

For the reasons set out above, loss from continuing operations after income tax amounted to EUR 26,963,000 in FY23.

SFY22 (audited)

For the reasons set out above, loss from continuing operations after income tax amounted to EUR 13,450,000 in SFY22.

FY22 (audited) vs. FY21 (audited)

For the reasons set out above, loss from continuing operations after income tax amounted to EUR 18,851,000 in FY22, an increase of EUR 12,125,000, or 180%, compared to EUR 6,726,000 (A\$ 10,744,614; unaudited) in FY21.

6.6.2.23 Other comprehensive income / loss

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

In H1/FY24, Vulcan Group had other comprehensive loss of EUR 968,000 (compared to EUR 3,394,000 in H1/FY23) which principally related to the revaluation of financial assets at fair value through other comprehensive income, relating to the investment in Kuniko.

FY23 (audited)

In FY23, Vulcan Group had other comprehensive loss of EUR 4,314,000, which principally related to translation of entities with a different functional currency to the group presentational currency and the fair value of Vulcan Group's residual interest in Kuniko following the discontinuation of use of the equity method as of 17 July 2023.

SFY22 (audited)

In SFY22, Vulcan Group had other comprehensive loss of EUR 1,648,000, which principally related to translation of entities with a different functional currency to the group presentational currency.

FY22 (audited) vs. FY21 (audited)

In FY22, Vulcan Group had other comprehensive gain of EUR 6,990,000, compared to other comprehensive loss of EUR 63,000 (A\$99,993) in FY21, which related in each case to translation of entities with a different functional currency to the group presentational currency. Vulcan changed its reporting currency in FY22 to EUR from AUD.

6.6.2.24 Total comprehensive loss

H1/FY24 (unaudited) vs. H1/FY23 (unaudited)

For the reasons set out above, the total comprehensive loss of Vulcan Group increased by EUR 1,336,000 or 7%, from EUR 18,978,000, in the six month period 2023 to EUR 20,314,000 in H1/FY24.

FY23 (audited)

For the reasons set out above, Vulcan Group had a total comprehensive loss of EUR 31,277,000 in FY23.

SFY22 (audited)

For the reasons set out above, Vulcan Group had a total comprehensive loss of EUR 15,098,000 in SFY22.

FY22 (audited) vs. FY21 (audited)

For the reasons set out above, the total comprehensive loss increased by EUR 5,072,000 or 75%, from A\$10,844,607 (EUR 6,789,000; unaudited), in FY21 to EUR 11,861,000 in FY22.

6.7 Assets, equity and liabilities

6.7.1 Overview

Table 12 shows selected information from the consolidated statements of financial position of the Company as at 30 June 2024, 31 December 2023, 31 December 2022 and as at 30 June 2022 and 30 June 2021. In respect of the financial position of the Company as at 30 June 2021, in order to aid comparison across periods, the information in section "*6.7.2 Comparison of the consolidated financial position as of 30 June 2024, 31 December 2023, 31 December 2022 and as of 30 June 2022 and 30 June 2021*" has been presented in both Australian dollars (being Vulcan Group's presentational currency through FY21) and euro (being Vulcan Group's presentational currency with effect from FY22), with the Australian dollar information being translated into euro using the exchange rate as at 30 June 2021, being A\$ 1/ EUR 0.6320. The information presented in Australian dollars has been extracted from the consolidated statement of financial position of the Company as at 30 June 2021 and the information presented in euro has been extracted from the consolidated statements of financial position of the Company as at 30 June 2024, 31 December 2023, 31 December 2022 and as at 30 June 2022.

Table 12: Consolidated statements of financial position

	30 Jun 2024	31 Dec 2023	31 Dec 2022	30 Jun 2022	30 Jun 2021
	EUR	EUR	EUR	EUR	A\$
	(unaudited)	(audited)	(audited)	(audited)	(audited)
ASSETS					
Current assets					
Cash and cash equivalents	60,577,000	78,728,000	134,107,000	175,416,000	114,705,865
Trade and other receivables	7,025,000	6,899,000	6,316,000	4,030,000	1,197,500
Contract assets	368,000	117,000	42,000	79,000	-
Inventories	158,000	327,000	155,000	138,000	-
Total current assets	68,128,000	86,071,000	140,620,000	179,663,000	115,903,365
Non-current assets					
Exploration and evaluation expenditure	53,088,000	48,475,000	30,135,000	20,440,000	13,793,798
Intangible assets	1,584,000	1,655,000	3,068,000	3,633,000	-
Property, plant and equipment	161,710,000	138,605,000	70,280,000	51,490,000	1,480,672
Right-of-use	3,994,000	4,416,000	3,377,000	2,990,000	566,246
Other assets	17,194,000	11,775,000	-	-	-
Investment at fair value through other comprehensive income	1,704,000	2,550,000	-	-	-
Investments accounted for using equity method	73,000	124,000	974,000	1,214,000	-
Deferred tax assets	3,101,000	3,212,000	1,681,000	1,710,000	-
Total non-current assets	242,448,000	210,812,000	109,515,000	81,477,000	15,840,716
Total assets	310,576,000	296,883,000	250,135,000	261,140,000	131,744,081
LIABILITIES					
Current liabilities					
Trade and other payables	10,806,000	17,194,000	9,418,000	8,354,000	2,113,014
Lease liabilities	1,061,000	1,086,000	646,000	439,000	62,389
Employee benefits	2,122,000	1,509,000	-	-	-
Provisions	750,000	750,000	752,000	608,000	87,584
Income tax liabilities	104,000	113,000	91,000	332,000	-
Derivative financial instrument	-	133,000	-	-	-
Deferred Income	-	-	132,000	-	-
Total current liabilities	14,843,000	20,785,000	11,039,000	9,733,000	2,262,987
Non-current liabilities					
Lease liabilities	2,996,000	3,325,000	2,670,000	2,566,000	496,547
Provisions	202,000	264,000	110,000	55,000	-
Deferred income	2,827,000	2,818,000	1,453,000	-	-
Deferred tax liabilities	1,366,000	1,410,000	1,702,000	1,463,000	-
Total non-current liabilities	7,391,000	7,817,000	5,935,000	4,084,000	496,547
Total liabilities	22,234,000	28,602,000	16,974,000	13,817,000	2,759,534

	30 Jun 2024 EUR	31 Dec 2023 EUR	31 Dec 2022 EUR	30 Jun 2022 EUR	30 Jun 2021 A\$
	(unaudited)	(audited)	(audited)	(audited)	(audited)
Net assets	288,342,000	268,281,000	233,161,000	247,323,000	128,984,547
EQUITY					
Contributed equity	362,963,000	323,739,000	259,158,000	258,933,000	136,500,372
Reserves	13,560,000	13,377,000	15,875,000	16,812,000	7,899,461
Accumulated losses	(88,181,000)	(68,835,000)	(41,872,000)	(28,422,000)	(15,415,286)
Total equity	288,342,000	268,281,000	233,161,000	247,323,000	128,984,547

6.7.2 Comparison of the consolidated financial position as of 30 June 2024, 31 December 2023, 31 December 2022 and as of 30 June 2022 and 30 June 2021

6.7.2.1 Current assets

30 June 2024 (unaudited) vs 31 December 2023 (audited)

Current assets decreased by EUR 17,943,000, or 21%, from EUR 86,071,000 as of 31 December 2023 to EUR 68,128,000 as of 30 June 2024. This decrease was primarily due to cash spent on investing activities including well site preparation and readiness, engineering and construction of the LEOP and CLEOP plants, and engineering of the Phase One LEP and CLP.

31 December 2023 (audited) vs 31 December 2022 (audited)

Current assets decreased by EUR 54,549,000, or 39%, from EUR 140,620,000 as of 31 December 2022 to EUR 86,071,000 as of 31 December 2023. This decrease was primarily due to cash spent on the construction of the LEOP and the Central Lithium Electrolysis Optimisation Plant ("CLEOP"), costs for the refurbishment of electric drills, DFS and Bridging Study costs, exploration costs and operating costs including labour and administrative costs.

31 December 2022 (audited) vs. 30 June 2022 (audited)

Current assets decreased by EUR 39,043,000, or 22%, from EUR 179,663,000 as of 30 June 2022 to EUR 140,620,000 as of 31 December 2022. This decrease was primarily due to cash spent on the LEOP, costs for the refurbishment of electric drills, DFS costs, exploration costs and operating costs including labour and administrative costs.

30 June 2022 (audited) vs. 30 June 2021 (audited)

Current assets increased by EUR 106,412,000, or 145.3%, from A\$115,903,365 (EUR 73,251,000; unaudited) as of 30 June 2021 to EUR 179,663,000 as of 30 June 2022, primarily due to proceeds from the issue of shares in September 2021 and an equity placement to Stellantis in June 2022.

6.7.2.2 Non-current assets

30 June 2024 (unaudited) vs 31 December 2023 (audited)

Non-current assets increased by EUR 31,636,000, or 15%, to EUR 242,448,000 as of 30 June 2024 from EUR 210,812,000 as of 31 December 2023. This increase was primarily due to an increase in property, plant and equipment for costs relating to well site preparation and readiness, engineering and construction of the LEOP and CLEOP plants, and engineering of the Phase One LEP and CLP.

31 December 2023 (audited) vs 31 December 2022 (audited)

Non-Current assets increased by EUR 101,297,000, or 92%, from EUR 109,515,000 as of 31 December 2022 to EUR 210,812,000 as of 31 December 2023. This increase was primarily due to the capitalisation of costs related to the construction of the LEOP and the CLEOP, refurbishment of

electric drill rigs, 3D seismic data acquisition, geological studies and costs for the planned Schleidberg well, DFS and Bridging Study costs, ordering of long-lead items and engineering costs as well as prepayments for casing relating to planned drilling.

31 December 2022 (audited) vs. 30 June 2022 (audited)

Non-current assets increased by EUR 28,038,000, or 34%, from EUR 81,477,000 as of 30 June 2022 to EUR 109,515,000 as of 31 December 2022. This increase was primarily due to the capitalisation of costs related to the construction of the LEOP, refurbishment of electric drill rigs, DFS costs and 3D seismic acquisition costs.

30 June 2022 (audited) vs. 30 June 2021 (audited)

Non-current assets increased by EUR 71,462,000, or 713%, from A\$15,840,716 (EUR 10,015,000; unaudited) as of 30 June 2021 to EUR 81,477,000 as of 30 June 2022, primarily due to the acquisition of the Insheim Plant (EUR 31.3 million), the acquisition and refurbishment of two electric drills rigs (EUR 10.1 million), the capitalisation of construction cost relating to the LEOP (EUR 10.5 million), the capitalisation of other exploration and evaluation attributable to progression of the DFS and the acquisition of 3D seismic data (EUR 11.3 million). To a lesser extent, the addition of goodwill and intangible assets associated with the acquisition of VEE (EUR 2.5 million) and the addition of the investment in Kuniko following its spin-off by Vulcan Group in August 2021 (EUR 1.2 million).

6.7.2.3 Current liabilities

30 June 2024 (unaudited) vs 31 December 2023 (audited)

Current liabilities decreased by EUR 5,942,000, or 29%, from EUR 20,785,000 as of 31 December 2023 to EUR 14,843,000 as of 30 June 2024. This decrease was primarily due to a decrease in trade and other payables from 31 December 2023 to 30 June 2024, due to the timing of payment of suppliers relating to capital purchases.

31 December 2023 (audited) vs 31 December 2022 (audited)

Current liabilities increased by EUR 9,746,000, or 88 %, from EUR 11,039,000 as of 31 December 2022 to EUR 20,785,000 as of 31 December 2023. This increase was primarily due to an increase in trade payables associated with increased activity at the Project, including orders related to the LEOP and the CLEOP, as well as an increase in lease liabilities and provisions.

31 December 2022 (audited) vs. 30 June 2022 (audited)

Current liabilities increased by EUR 1,306,000, or 13%, from EUR 9,733,000 as of 30 June 2022 to EUR 11,039,000 as of 31 December 2022. This increase was primarily due to an increase in trade payables associated with increased activity at the Project, including orders related to the LEOP.

30 June 2022 (audited) vs. 30 June 2021 (audited)

Current liabilities increased by EUR 8,304,000, or 581%, from A\$2,262,987 (EUR 1,429,000; unaudited) as of 30 June 2021 to EUR 9,733,000 as of 30 June 2022, primarily due to an increase in development activity for the Project, as well as an increase in lease liabilities and provisions.

6.7.2.4 Non-current liabilities

30 June 2024 (unaudited) vs 31 December 2023 (audited)

Non-current liabilities decreased by EUR 426,000, or 5%, from EUR 7,817,000 as of 31 December 2023 to EUR 7,391,000 as of 30 June 2024. This decrease was primarily due to the repayment of lease liabilities, partially offset by minimal lease additions during the period.

31 December 2023 (audited) vs 31 December 2022 (audited)

Non-current liabilities increased by EUR 1,882,000, or 32%, from EUR 5,935,000 as of 31 December 2022 to EUR 7,817,000 as of 31 December 2023. This increase was primarily due to deferred income relating to research and development grants received.

31 December 2022 (audited) vs. 30 June 2022 (audited)

Non-current liabilities increased by EUR 1,851,000, or 45%, from EUR 4,084,000 as of 30 June 2022 to EUR 5,935,000 as of 31 December 2022. This increase was primarily due to deferred income relating to research and development grants received.

30 June 2022 (audited) vs. 30 June 2021 (audited)

Non-current liabilities increased by EUR 3,770,000, or 1,201%, from A\$496,547 (EUR 314,000; unaudited) as of 30 June 2021 to EUR 4,084,000 as of 30 June 2022, primarily due to leases undertaken for buildings and vehicles and a deferred tax liability arising from the acquisition of the Insheim Plant.

6.7.2.5 Equity

30 June 2024 (unaudited) vs 31 December 2023 (audited)

Equity increased by EUR 20,061,000, or 7%, from EUR 268,281,000 as of 31 December 2023 to EUR 288,342,000 as of 30 June 2024. This increase was primarily due to an increase in share capital due to EUR 40 million raised through a strategic investor placement, partially offset by loss after tax for the period.

31 December 2023 (audited) vs 31 December 2022 (audited)

Equity increased by EUR 35,120,000, or 15%, from EUR 233,161,000 as of 31 December 2022 to EUR 268,281,000 as of 31 December 2023. This increase was primarily due to an equity fundraising in an amount of EUR 66 million in May 2023, partly offset by accumulated losses during the period.

31 December 2022 (audited) vs. 30 June 2022 (audited)

Equity decreased by EUR 14,162,000, or 6%, from EUR 247,323,000 as of 30 June 2022 to EUR 233,161,000 as of 31 December 2022. This decrease was primarily due to accumulated losses during the period.

30 June 2022 (audited) vs. 30 June 2021 (audited)

Equity increased by EUR 165,800,000, or 203%, from A\$128,984,547 (EUR 81,523,000; unaudited) as of 30 June 2021 to EUR 247,323,000 as of 30 June 2022, primarily due to EUR 124 million equity fundraising in September 2021 and a EUR 50 million equity placement to Stellantis N.V.

6.8 Liquidity and financial resources

6.8.1 Overview

The development of the infrastructure needed for lithium extraction and renewable energy production is capital intensive. Securing and maintaining a strong cash position is important to Vulcan Group's business. The Company's principal source of funds has historically been cash generated from financing activities, primarily the issuance of share capital, as well as government and other grants. The Company expects that capital expenditures to fund the Project will represent its most significant use of funds at least throughout the development of Phase One and, subject to definitive feasibility studies and the availability of funding, in future phases. It will also need to pay interest on the debt components of any project debt financing. After the commencement of commercial production at the Project, certain working capital requirements, operating costs, payments of interest and principal are expected to be higher during the development period, and incremental capital expenditures after the development period are anticipated to be the primary use of funds and are expected to be sourced primarily out of cash flow from operations. The Company had cash and cash equivalents of EUR 78.7 million as at 31 December 2023 and of EUR 60.577 million as at 30 June 2024.

6.8.2 Capital expenditure

Vulcan Group's capital expenditure was initially comprised primarily of expenditure relating to obtaining approvals and completing technical studies in connection with the Project, consultant costs and costs related to piloting Vulcan Group's lithium extraction technology (see section "2.8.2 Capital expenditure"). More recently, capital expenditure has been related to the ordering of equipment and

construction of a lithium extraction pilot plant ("**Pilot Plant**") and the LEOP, as well as to refurbishing Vulcan Group's in-house electric drill rigs. Vulcan Group's capital expenditure amounted to A\$7,239,989 (EUR 4,572,000; unaudited) (FY21), EUR 67,880,000 (FY22), EUR 30,704,000 (SFY22), EUR 90,820,000 (FY23) and EUR 30,290,000 (H1/FY24), respectively, relating principally to the following:

- The A\$7,239,989 (EUR 4,572,000; unaudited) in capital expenditure (before impairments and depreciation) in FY21 related to the acquisition, exploration and property plant and equipment expenditure on the Project. These capital expenditures were funded principally from capital raised in June 2020 and February 2021 as well as the proceeds of the exercise of listed options.
- The EUR 67,880,000 in capital expenditure (before impairments and depreciation) in FY22 related to exploration and evaluation activities associated with the DFS and the acquisition of 3D seismic and drilling data and geological studies, commencement of construction of the LEOP, the acquisition of the Insheim Plant, the acquisition and refurbishment of two electric drill rigs and intangible assets (including goodwill, customer relationships and operating permit) associated with the acquisitions of Natürlich Insheim and VEE.
- The EUR 30,704,000 in capital expenditure (before impairments and depreciation) in SFY22 related to construction of the LEOP, refurbishment of electric drill rigs, 3D seismic, DFS engineering and other exploration and plant and equipment costs.
- The EUR 90,820,000 in capital expenditure (before impairments and depreciation) in FY23 related to construction of the LEOP and the CLEOP, refurbishment of electric drill rigs, 3D seismic data acquisition, DFS and Bridging Study costs, engineering and other exploration and plant and equipment costs.
- The EUR 30,290,000 in capital expenditure (before impairments and depreciation) in the period from 1 January 2024 to 30 June 2024 related to spend on well site preparation and readiness, engineering and construction of the LEOP and CLEOP plants, engineering of the Phase One LEP and CLP and other exploration and evaluation activities.

Between 30 June 2024 and the date of this Prospectus, Vulcan Group incurred capital expenditures in the amount of approximately EUR 15.9 million, primarily comprising of exploration and evaluation expenditure, Schleiberg wellsite preparation, refurbishment costs for Vulcan's two electric drill rigs, CLEOP and the GEOSMART project (Insheim Plant) focusing on geothermal extraction and purification of brine.

Vulcan Group's capital expenditure is expected to increase substantially in future years as it progresses the development of the Project towards commercial production. Vulcan Group is currently intending to develop Phase One, with future phases to follow subject to further studies and funding (see section "2.10 References regarding mineral resources, ore reserves and production targets" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus.

Phase One (targeted to commence commercial production in 2027, being approximately 30 - 33 months from the receipt of funds from the Envisaged Equity Financing) is expected to require capital expenditure (not including financing costs) of approximately EUR 1,431 million (including contingencies), according to Vulcan Group's models and estimates. This estimate includes, among other capital expenditures, EUR 400 million for the development of one LEP, EUR 321 million for the development of one CLP and EUR 710 million for the development of one geothermal plant (including associated drilling costs and piping infrastructure). Although a definitive feasibility study has not been completed on developments beyond Phase One, and additional uncertainty remains on the technical, operational and financing assumptions of future phases at this stage, further evaluation and studies into these future developments will be undertaken as the Company advances the Project. Also, the level of capital expenditure required for the Project will be determined and refined as the Company advances the Project beyond Phase One. Vulcan Group intends to plan further phases across Vulcan Group's licence area, as Vulcan Group plans to grow production in a staged, modular fashion.

Substantially all of the capital expenditure related to the Project will be incurred in Europe, principally Germany.

Vulcan Group intends to fund the planned investments to implement Phase One of the Project through a combination of debt financing at the project level as well as equity financing at the Company and project level (see section "8.1.3.5 Funding on Company Level and on Project Level").

The Company may finance future phases of the Project (beyond Phase One) through a combination of green financing, which refers to funding obtained for projects that have positive environmental benefits, and, potentially, syndicated senior debt, hybrid debt, equity investment from third parties at the level of project-related special purpose vehicles (project level), and/or further equity fundraising in the capital markets at the parent level. The Company may also consider the bond market once in production for Phase One and/or future phases, in view of the generally increasing market demand observed in the recent past for bonds that meet ESG criteria and the availability of longer term yields in the bond market as compared to other forms of debt.

Vulcan Group has also been the beneficiary of support from the German Federal Ministry of Economics and Climate Protection (BMWK) and the European Recovery and Resilience Facility via the German Recovery and Resilience Plan (the BEW Funding) for its HEAT4LANDAU project, which is part of Phase One to deliver heat for the city of Landau, InnoEnergy and of other government grants, and is further engaging with the relevant bodies in Germany and the EU regarding the possibility of securing further grants and support (see section "6.2.7 Vulcan Group's financing arrangements").

As of the date of this Prospectus, Vulcan Group has entered into commitments for ongoing capital expenditures in an aggregate amount of approximately EUR 2.1 million, which will be primarily invested in Germany. The Company plans to finance these ongoing capital expenditures from existing cash balances.

6.8.3 Borrowings

Vulcan Group intends to fund the planned investments to implement Phase One of the Project through a combination of debt financing at the project level as well as equity financing at the Company and project level. Vulcan Group has appointed BNP Paribas to advise on the project financing process.

In September 2024, Vulcan Group has entered into the BNP Paribas Facility in an amount of up to EUR 10 million to provide short term flexibility prior to completion of the equity and debt financing of Phase One of the Project.

With respect to debt financing at the project level, Vulcan Group has received a conditional commitment letter from a number of institutions (including Export Finance Australia and commercial banks) covering a debt financing amount of EUR 879 million; (see section "8.1.3.5 Funding on Company Level and on Project Level").

Vulcan Group may also consider the bond market once in production, in view of the increasing market demand for bonds that meet ESG criteria and the availability of longer-term yields in the bond market as compared to project finance (high yield) bonds. In October 2024, Vulcan Group's Sustainability and ESG Framework has been assessed by leading independent ratings agency, S&P Global Ratings, and been awarded a "Dark Green" rating overall and, in December 2023, ERM has completed its ESIA for Phase One of Vulcan Group's Project. The ESIA is a prerequisite to the raising of sustainable or "green" debt finance and is an important third-party validation of the sustainability credentials of the Project. The ESIA was updated on 16 September 2024.

Going forward, the Company expects to incur further substantial indebtedness in connection with the financing of future phases of the Project, including to fund capital expenditure requirements. However, the actual amount of debt incurred will depend upon actual capital expenditure requirements, the availability of suitable debt financing and the market terms available in the debt capital markets at the time Vulcan Group seeks this financing, as compared with other sources of financing. For more information, see section "6.2.7 Vulcan Group's financing arrangements" above.

6.8.4 Cash flows

The following table shows selected information from the Company's consolidated statement of cash flows for H1/FY24, FY23, SFY22, FY22 and FY21. In respect of the cash flows of the Company for FY21, in order to aid comparison across periods, the information in section "6.8.5 Comparison of the figures reported in the consolidated statements of cash flows for the six-month period ended 30 June 2024, the financial year ended 31 December 2023, the short financial year ended 31 December

2022 and the financial years ended 30 June 2022 and 30 June 2021" has been presented in both Australian dollars (being Vulcan Group's presentational currency through FY21) and euro (being Vulcan Group's presentational currency with effect from FY22), with the Australian dollar information being translated into euro using the average daily exchange rate during the period, being A\$ 1/ EUR 0.6260. The information presented in Australian dollars has been extracted from the consolidated statements of cash flows of the Company for FY21 and the information presented in euro has been extracted from the consolidated statements of cash flows of the Company for H1/FY24 and FY23, SFY22 and FY22.

Table 13: Consolidated statement of cash flows

	H1/FY24 EUR	FY23 EUR	SFY22 EUR	FY22 EUR	FY21 A\$
	(unaudited)	(audited)	(audited)	(audited)	(audited)
Cash flows from operating activities					
Receipts from customers	3,832,000	8,315,000	3,496,000	3,799,000	-
Payments to suppliers and employees	(17,759,000)	(37,711,000)	(12,941,000)	(15,400,000)	(3,446,209)
Interest received	1,352,000	3,359,000	468,000	228,000	100,937
Other income	151,000	2,424,000	1,798,000	317,000	510,879
Interest paid	(89,000)	(172,000)	(239,000)	(291,000)	(6,752)
Income taxes paid	-	(546,000)	-	-	-
Net cash used in operating activities	(12,513,000)	(24,331,000)	(7,418,000)	(11,347,000)	(2,841,145)
Cash flows from investing activities					
Payments for exploration and evaluation costs	(6,913,000)	(19,003,000)	(10,429,000)	(9,384,000)	(5,832,409)
Payment for plant and equipment	(36,607,000)	(73,629,000)	(20,094,000)	(22,793,000)	(1,312,818)
Payment to acquire subsidiary	-	(150,000)	-	(32,685,000)	-
Cash acquired upon acquisition of subsidiary	-	35,000	-	-	-
Payments to acquire financial assets	(87,000)	287,000	(1,245,000)	(30,008,000)	-
Proceeds from disposal of financial assets	-	-	-	29,282,000	-
Net cash used in investing activities	(43,607,000)	(92,460,000)	(31,768,000)	(64,358,000)	(7,145,227)
Cash flows from financing activities					
Proceeds from exercise of listed and unlisted options	-	-	-	-	4,430,809
Proceeds from issued shares	40,000,000	67,350,000	-	176,208,000	120,000,000
Share issue costs	(67,000)	(2,770,000)	-	(4,378,000)	(6,139,997)
Lease repayments	(565,000)	(1,744,000)	(462,000)	(185,000)	(22,888)
Financing costs	(1,544,000)	-	-	-	-
Repayment of loan to Associate	-	(81,000)	-	409,000	-

	H1/FY24 EUR	FY23 EUR	SFY22 EUR	FY22 EUR	FY21 A\$
	(unaudited)	(audited)	(audited)	(audited)	(audited)
Net cash used in / from financing activities	37,824,000	62,755,000	(462,000)	172,054,000	118,267,924
Net increase / (decrease) in cash and cash equivalents	(18,296,000)	(54,036,000)	(39,648,000)	96,349,000	108,281,552
Cash and cash equivalents at the beginning of the period/year	78,728,000	134,107,000	175,416,000	72,494,000	6,421,557
Effect of exchange rate fluctuations on cash held	145,000	(1,343,000)	(1,661,000)	6,573,000	2,756
Cash and cash equivalents at the end of the period/year	60,577,000	78,728,000	134,107,000	175,416,000	114,705,865

6.8.5 Comparison of the figures reported in the consolidated statements of cash flows for the six-month period ended 30 June 2024, the financial year ended 31 December 2023, the short financial year ended 31 December 2022 and the financial years ended 30 June 2022 and 30 June 2021

6.8.5.1 Net cash used in operating activities

HY1/24 (unaudited)

Net cash used in operating activities was EUR 12,513,000 in H1/FY24. This was primarily attributable to operational costs associated with the growth of Vulcan Group's operations as a result of the ramp-up of the Project, including the operation of the Insheim Plant and related employee expenses. This outflow was partially offset by revenue generated by the Insheim Plant as well as interest earned on Vulcan Group's cash balances.

FY23 (audited)

Net cash used in operating activities was EUR 24,331,000 in FY23. This was primarily attributable to additional operation costs associated with the growth of Vulcan Group's operations in Germany as a result of the ramp-up of the Project, including the operation of the Insheim Plant and related employee expenses. This outflow was partially offset by revenue generated by the Insheim Plant as well as interest earned on Vulcan Group's cash balances and research and development grants.

SFY22 (audited)

Net cash used in operating activities was EUR 7,418,000 in SFY22. This was primarily attributable to additional operation costs associated with the growth of Vulcan Group's operations in Germany as a result of the ramp-up of the Project, including the operation of the Insheim Plant and related employee expenses. This outflow was partially offset by revenue generated by the Insheim Plant as well as interest earned on Vulcan Group's cash balances and research and development grants.

FY22 (audited) vs. FY21 (audited)

Net cash used in operating activities increased by EUR 9,569,000 or 538% to EUR 11,347,000 in FY22 from A\$2,841,145 (EUR 1,778,000; unaudited) in FY21. The increase was primarily due to additional operation costs associated with the growth of Vulcan Group's operations in Germany as a result of the ramp-up of the Project, particularly additional employees hired in connection with this ramp-up and employees acquired in the acquisitions of Natürlich Insheim, VEE and VESS. The increase in outflow was partially offset by revenue generated by the Insheim Plant, VEE and VESS.

6.8.5.2 Net cash used in investing activities

HY1/24 (unaudited)

Net cash used in investing activities was EUR 43,607,000 in H1/FY24. This was primarily attributable to spend on well site preparation and readiness, engineering and construction of the LEOP and CLEOP plants, engineering of the Phase One LEP and CLP and other exploration and evaluation activities.

FY23 (audited)

Net cash used in investing activities was EUR 92,460,000 in FY23. This was primarily attributable to the continued development of the Project during the period, including construction of the LEOP and the CLEOP, refurbishment of electric drill rigs, 3D seismic data acquisition, geological studies and costs for the planned Schleidberg well, land acquisition, Bridging Study and engineering costs.

SFY22 (audited)

Net cash used in investing activities was EUR 31,768,000 in SFY22. This was primarily attributable to the continued development of the Project during the period, including construction of the LEOP, refurbishment of electric drill rigs, 3D seismic and DFS engineering costs.

FY22 (audited) vs. FY21 (audited)

Net cash used in investing activities increased from A\$7,145,227 (EUR 4,473,000; unaudited) in FY21 to EUR 64,358,000 in FY22. This increase reflects the significant ramp-up in the development of the Project during FY22, and includes the costs of acquiring and investing in Natürlich Insheim (EUR 32.7 million), the costs of acquisition (EUR 7.1 million) and refurbishment (EUR 3.0 million) of two electric drill rigs, the acquisition of 3D seismic and drilling data and other exploration activities including work done on the DFS (EUR 9.4 million) and construction costs related to the LEOP (EUR 10.8 million). As part of its cash management in FY22, Vulcan Group also invested some of its cash balances in liquid financial investments (primarily bonds), which were liquidated within the financial year at a small loss (with proceeds from disposal of EUR 29.3 million, compared to payments of EUR 30.0 million for the acquisition of these financial assets).

6.8.5.3 Net cash from financing activities

HY1/24 (unaudited)

Net cash from financing activities was EUR 37,824,000 in H1/FY24. This was primarily attributable to funds raised from a strategic investor share placement of EUR 40 million, partially offset by fees associated with the share placement, repayment of lease liabilities and costs associated with project debt financing.

FY23 (audited)

Net cash from financing activities was EUR 62,755,000 in FY23. This was primarily attributable to an equity fundraising in an amount of EUR 66 million in May 2023.

SFY22 (audited)

Net cash from financing activities was an outflow of EUR 462,000 in SFY22. This was primarily attributable to lease repayments. Vulcan Group did not issue any shares or engage in any other financing activities during the period.

FY22 (audited) vs. FY21 (audited)

Net cash from financing activities increased from A\$118,267,924 (EUR 74,035,000; unaudited) in FY21 to EUR 172,054,000 in FY22, primarily arising from a EUR 124 million underwritten share placement in September 2021 (accompanied by a share purchase plan allowing existing shareholders to invest at the same price as in the share placement, raising EUR 2 million) and the EUR 50 million equity placement to Stellantis N.V. in June 2022.

6.8.6 Financial liabilities

Financial liabilities mainly include trade payables, lease liabilities and payables to taxation authorities for VAT. As of 31 December 2023, financial liabilities had the following maturities based on the contractually agreed amounts.

Table 14: Financial liabilities as of 31 December 2023 (audited)

in EUR thousand	Up to 1 year	1 to 5 years	Over 5 years	Total
Trade payables	9,514,000	-	-	9,514,000
Other financial liabilities	7,680,000	-	-	7,680,000
Lease liabilities	1,086,000	2,596,000	729,000	4,411,000
Financial liabilities	18,280,000	2,596,000	729,000	21,605,000

6.8.7 Contingent liabilities and other financial obligations

There were no contingent liabilities as at 31 December 2023. Vulcan Group had approximately EUR 24,360,000 in capital commitments at 31 December 2023.

6.8.8 Off-balance sheet arrangements

Vulcan Group had no off-balance sheet arrangements as of 31 December 2023.

6.9 Qualitative and quantitative disclosure on market risks

For a description of Vulcan Group's management of foreign exchange risk, interest rate risk, credit risk and liquidity risk, see Note 18 of the Consolidated Annual Financial Statements 2021, Note 27 of the Consolidated Annual Financial Statements 2022, Note 29 of the Consolidated Short Financial Year Financial Statements 2022 and Note 33 of the Consolidated Annual Financial Statements 2023.

6.10 Key accounting and valuation principles involving estimates or judgements

For a description of Vulcan Group's critical accounting judgements and key sources of estimation uncertainty, see Note 2 of each of the Consolidated Financial Statements.

7. MARKET OVERVIEW

Following completion of the Bridging Study, the Company commissioned an independent market study from BMI, an independent cross-commodity PRA in the metals and mining, critical minerals, and rare earths markets, dated 19 July 2024 (the BMI Analysis). The BMI Analysis was commissioned to support the debt-financing process for Phase One of the Project (see section "8.1.3.5 Funding on Company Level and on Project Level") and is not an expert report within the meaning of Item 1.3 of Annex I of the Commission Delegated Regulation (EU) 2019/980 of March 14, 2019).

This Prospectus section includes summary information of the BMI Analysis, unless indicated otherwise.

The Company has not verified any of the market data or other information included in the BMI Analysis, nor has the Company asked BMI to modify or otherwise adjust the BMI Analysis (except where the Company identified inaccuracies).

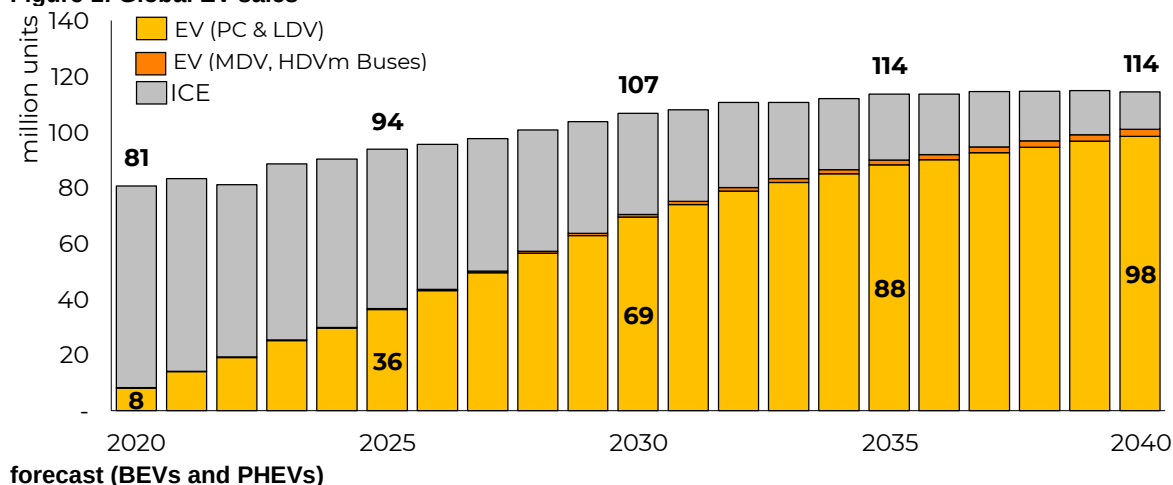
7.1 Lithium demand

Lithium is an essential material in the transition to a low-carbon economy, and is the integral component of the lithium-ion battery. There has been a drive by the EU to regionalise supply of this critical mineral, not only to secure domestic consumption requirements and reduce the reliance on foreign supply, but also to shorten supply chains, control traceability and improve the ESG production footprint (source: Fastmarkets Insights).

With EVs being championed to help decarbonisation efforts, lithium-ion batteries have seen significant development and production growth over recent years. Lithium-ion batteries are the industry-favoured technology type for BEVs, given their energy storage capacity to weight ratio, cost and performance, relative to other technologies.

Sales of BEVs and plug-in hybrid electric vehicles ("**PHEVs**") have grown significantly in recent years, and are expected to represent the majority of car sales globally from 2027, with BMI forecasting the sale of EVs to grow from 25 million units in 2023 to 51 million units by 2027 (Figure 1).

Figure 1: Global EV sales



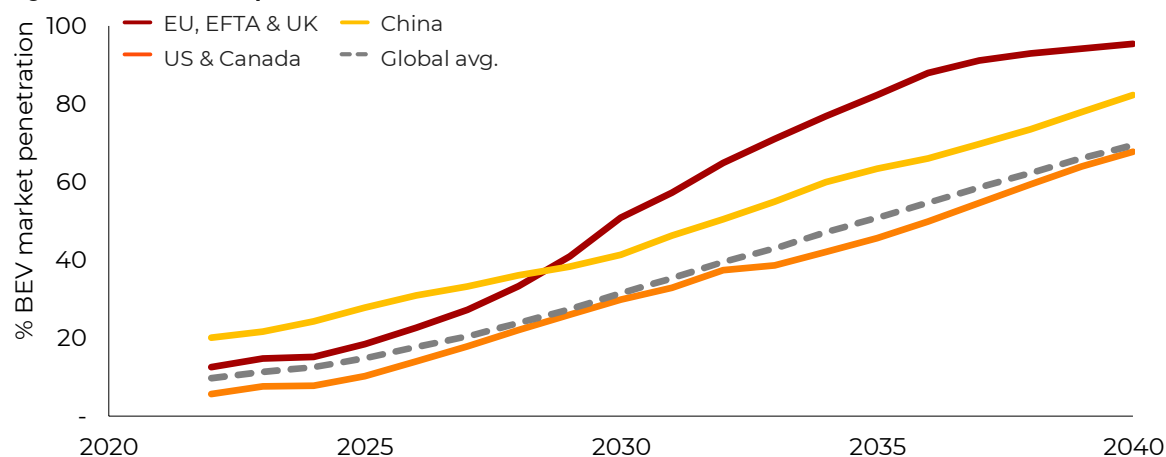
Note: PC: Passenger Cars, LDV: Light Duty Vehicles, MDV: Medium Duty Vehicles, HDV: Heavy Duty Vehicles, ICE: Internal Combustion Engine vehicles.

Source: BMI Analysis

While the growth of BEV uptake is the consensus view, expectations as to just how rapidly these sales will gain momentum vary and has implications for the lithium supply / demand balance in terms of the quantity needed by a certain time and the ease with which projects can gain financing and start production. Although this variability implies high uncertainty, BMI expects that key levers such as legislative changes, emission and electrification targets, green financing, i.e. funding obtained for projects that have positive environmental benefits, and technology diversification from OEMs will drive lithium growth in the near term.

BEV penetration rates in Europe are forecast to grow strongly from 2025 onwards (Figure 2), particularly as legislative mandates begin to take hold and European automakers begin shifting a greater percentage of production towards zero-emission vehicles. For example, Germany is targeting 15 million EVs on the road by 2030, France is planning to have 2 million EVs and PHEVs by 2030, and the UK is seeking to phase out all internal combustion engine ("**ICE**") vehicles by 2035 and is targeting zero-emission vehicle sales of 22% by 2024, 52% by 2028 and 80% by 2030 (source: BMI Analysis). Additionally, European OEMs may have their own accelerated targets for greater BEV/PHEV sales in Europe.

Figure 2: BEV market penetration forecast

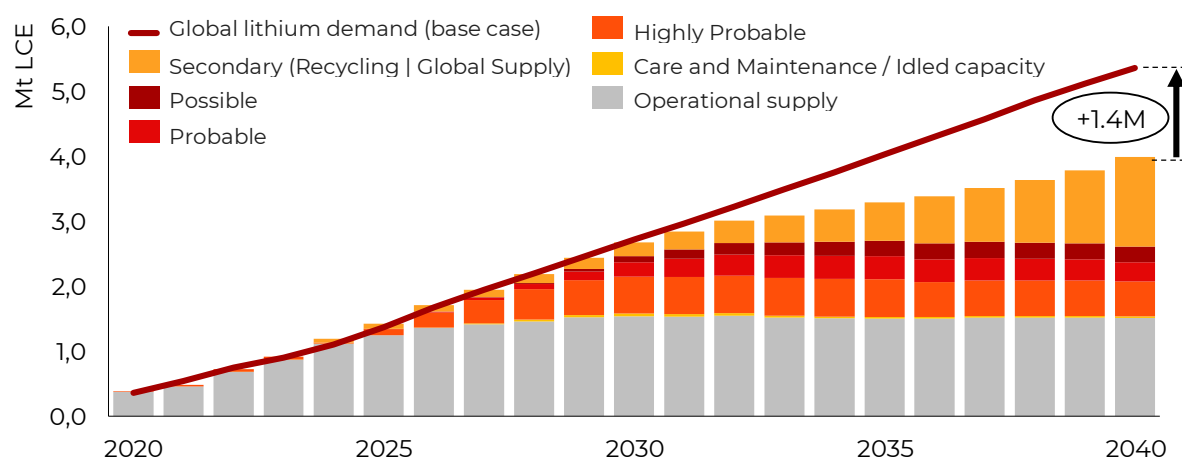


Note: BEV market penetration for passenger cars and light-duty vehicles
Source: BMI Analysis

7.2 Lithium supply / demand balance

In terms of lithium market balance, BMI expects apparent global supply growth to fail to keep up with the pace of demand for lithium from 2028, with this gap expected to continue increasing and result in a 1.4 million tonnes of LCE supply deficit by 2040 (Figure 3).

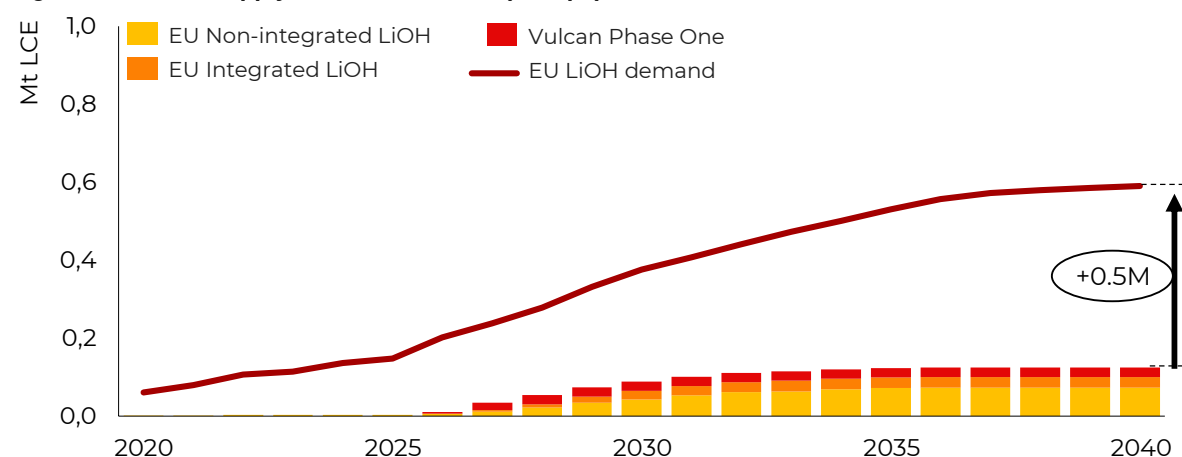
Figure 3: Lithium supply / demand balance (Global)



Note: Lithium supply is probability weighted, except for Vulcan Group's Phase One production
Source: BMI Analysis

Additionally, the BMI expects the current sizeable deficit for European supply to continue to grow larger throughout the forecast period, representing a supply shortfall of 0.5 million tonnes of LCE by 2040 (Figure 4)

Figure 4: Lithium supply / demand balance (Europe)



Note: Lithium supply is probability weighted, except for Vulcan Group's Phase One production
Source: BMI Analysis

7.3 Vulcan Group's competitive environment

7.3.1 Competitive landscape and outlook

Vulcan Group believes that Phase One of the Project is strategically well positioned to benefit from the increasing demand for lithium in Europe. The advantages of A-DLE production combined with renewable geothermal heat and power offers a low-opex solution that makes economic and environmental sense. While certain weaknesses and threats to the lithium market exist, these are largely not specific to the Project and are considered by Vulcan Group to be more than offset by the strengths and opportunities that the Project's strategy offers (see section "8.2 Competitive Strengths").

One of these strengths are Vulcan Group's ESG credentials across a range of metrics (also see "8.8 Environmental, Social and Governance (ESG)"):

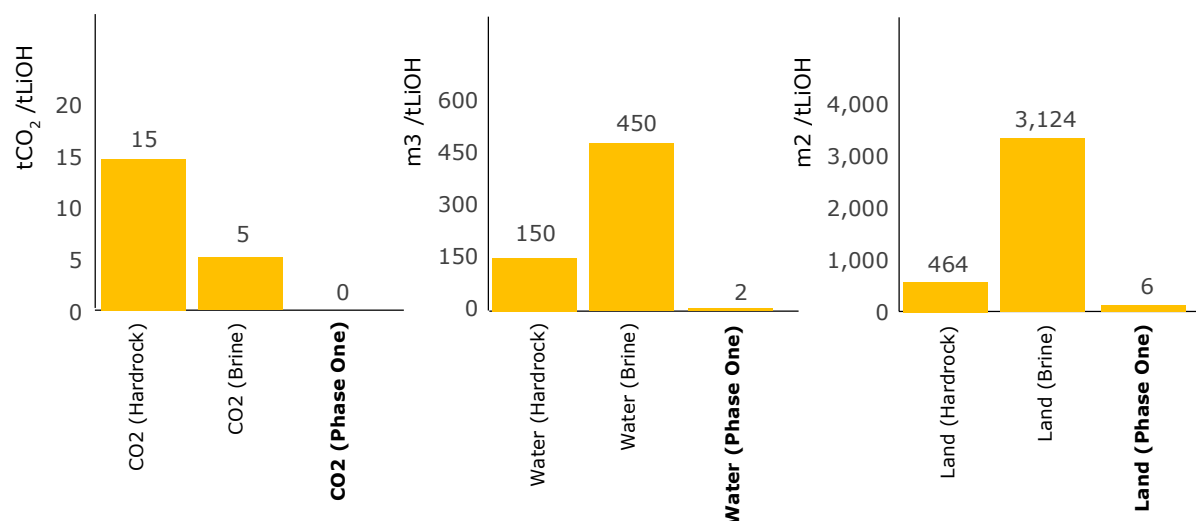
- Carbon intensity: Co-production of geothermal renewable energy (power and heat) to allow for a carbon neutral product, based on the ISO-LCA method over the life cycle of Phase One of the Project.
- Net energy balance: Sale of power and heat contributes to the decarbonisation of the country's energy mix (currently one of the highest GHG-emitting in Europe).
- Water and land intensity: The A-DLE method of lithium production, when combined with freshwater recycling as Vulcan Group is doing, uses significantly less water, and has a much smaller land footprint, than the average hard rock or reagent plus solar evaporation brine operation.
- Social acceptance: Combination of renewable energy provision to local communities, and accompanying ESG credentials, allows for strong public support for the Project. Social acceptance in local communities has been strongly evidenced by voting in support of the Project by Landau City Council. Not all prospective European lithium projects are as well positioned in this regard, and sensitivity to the impact of hard rock mining projects in the EU is expected by the Company to remain high.

In Vulcan Group's opinion, Vulcan Group's relevant peers are European Metals Ltd (ASX: EMH), Rio Tinto Limited (ASX:RIO); Infinity Lithium Corporation Limited (ASX:INF), Sibanye Stillwater Limited (JS: SSW) and Savannah Resources PLC (AIM:SAV), all being companies with lithium projects located in Europe.

7.3.2 Benefits of carbon neutral lithium

Phase One of Vulcan Group's Project differentiates itself from other potential European lithium projects by its superior ESG credentials compared to other lithium production methods. Phase One of the Project is expected to produce renewable geothermal energy, offsetting the carbon intensity of its lithium operations, within a relatively small land surface footprint and in a robust closed-loop water recycling design that is expected to use significantly less water compared to the average hard rock or reagent plus solar evaporation brine operation (see Figure 5).

Figure 5: ESG metrics (Phase One)



Source: BMI Analysis, Minviro

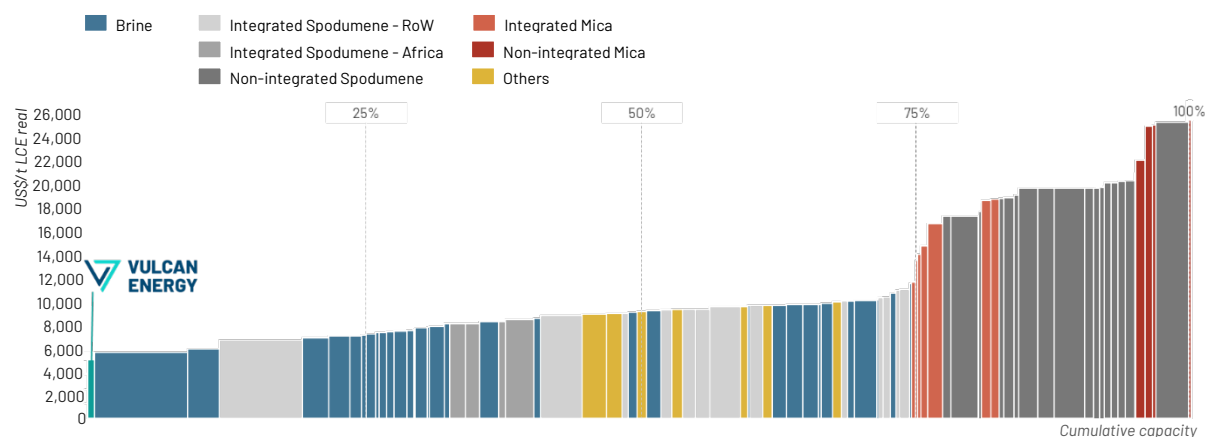
Due to its ESG credentials, the Phase One of the Project is expected to be attractive to customers and provides Vulcan Group with a competitive advantage.

7.3.3 Low-cost lithium production

The key factor in determining the profitability of Phase One will be the Project's cost of production relative to other operations.

BMI's cost curve (Figure 6) presents a positive view of Vulcan Group's cost advantage, showing a project with expected low-cost operations in the first quartile of production cost. Being based in Europe and supplying a European customer base, the Project would also avoid any existing, planned or proposed import restrictions, tariffs and duties which may apply on imports from other suppliers.

Figure 6: Global projected lithium C1 cost curve



Note: C1 cost includes extraction / mining cost, processing cost, reagent cost, transportation and storage, general and administrative expenses, energy and labour, maintenance, and other costs. C1 costs are estimated at US\$5,037/t LCE (€4,030/t LHM, using a 1.136 LCE to LHM ratio and a 1EUR:1.10USD exchange rate).

Source: BMI, BNP Paribas

8. BUSINESS

8.1 Introduction

8.1.1 Business Overview

Vulcan Group is an Australian headquartered lithium battery chemicals and renewable energy group with a clear goal to become the world's first integrated lithium chemicals and geothermal renewable energy producer. In addition, the Company endeavours to become Europe's first fully domestic sustainable lithium chemicals producer, and seeks to differentiate itself from its peers through proven sustainability credentials of its business, as evidenced by (a) the lowest greenhouse gas footprint per tonne LHM to be produced for a lithium company according to Benchmark Mineral Intelligence and (b) the world's first S&P Global "Dark Green" rating for a mining and metals company (which is awarded to companies dedicated to the long-term vision of a low-carbon, resilient future). With the Project, Vulcan Group intends to combine the operations of extracting lithium-rich geothermal brines in the Upper Rhine Valley of Germany, of upgrading lithium through electrolysis to a high purity LHM (Vulcan Group's lithium business), and of producing geothermal energy (Vulcan Group's renewable energy business). Vulcan Group's Project intends to produce a battery-quality lithium chemical product from its combined geothermal renewable energy and lithium resource located in the Upper Rhine Valley. Vulcan Group's combined geothermal energy and lithium resource is, on a LCE basis, is estimated to be Europe's largest lithium resource (according to public information, as estimated and reported in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("**JORC Code**") (source: Bridging Study; see section "2.10 References regarding mineral resources, ore reserves and production targets" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus. Vulcan Group aims to supply the BEV market in Europe, which is currently mostly reliant on imports of lithium chemicals given the lack of domestic supply. The Project has also been designed from its inception to help decarbonise the German electrical and local heating grids and lithium supply chain simultaneously and is expected to have the lowest planned carbon footprint on a per tonne of LHM basis in the lithium industry, placing the Phase One of the Project near the bottom of the global emissions curve (source: BMI Analysis). An essential part of the Project involves the use of thermal water as the principal heat source to drive the lithium extraction, which means that lithium is expected to be extracted from the brine with a carbon neutral footprint without polluting the environment with waste material or toxic substances prior to the brines being re-injected in a closed loop, circular system.

In order to advance its lithium and geothermal exploration activities as well as its renewable energy business for the Project, Vulcan Group has undertaken several strategic acquisitions in Germany within the last three years, including the acquisition of: (i) two electric drill rigs in November 2021 which can drill to the target depth required for deep geothermal energy wells in the Upper Rhine Valley of Germany (and subsequently formed a drilling company, Vercana GmbH ("**Vercana**")); (ii) geothermal renewable energy plant operator Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH) in December 2021; and (iii) geothermal renewable energy plant operator geox in September 2024 (acquisition yet to be completed). Since the completion of the acquisition of Pfalzwerke geofuture GmbH, Vulcan Group is an active renewable energy producer.

Vulcan Group holds a total of 17 licences, being 16 (main) exploration licences and one production licence including having access to one exploration and production licence, respectively, covering a total area of over 1,771 km² in the Upper Rhine Valley of Germany for areas within the German states of Baden-Württemberg, Rhineland-Palatinate and Hesse and an exploration licence in the French region of the Upper Rhine Valley, covering an area of 463 km² around the city of Mulhouse, France. An exploration licence is needed for exploring freely mineable resources, and a production licence (also referred to as an exploitation licence) gives the right to extract freely mineable resources. Vulcan Group is currently at the development stage and is targeting commencement of commercial production from Phase One in 2027, capitalising on its proprietary method for the manufacture of battery-grade LHM with a carbon neutral footprint.

As of the date of this Prospectus, Vulcan Group has entered into binding agreements for the sale of battery grade LHM (referred to as lithium offtake agreements) with Umicore, Renault, Stellantis, LG Energy and Volkswagen. Under the lithium offtake agreements with Stellantis, Renault and LG Energy, commercial delivery is scheduled to commence in 2027 and 2028 whereas the start of commercial delivery under the Umicore agreement is yet to be adjusted to align with the targeted start of commercial production. The lithium offtake agreement with Volkswagen is also yet to be

amended to apply to a future phase of production beyond Phase One (with the timing yet to be defined). Together, the volumes of LHM to be delivered under these agreements correspond to the entire expected quantity of the first five years of production from Phase One, and the majority of the production in the second five years of production. It is anticipated that the volumes of LHM to be delivered under these lithium offtake agreements will be supplied from a gradual ramp up of production from the Project, as specified in Vulcan Group's Bridging Study. Pursuant to the Bridging Study, Phase One includes the construction of one geothermal plant, one LEP and a CLP, currently targeting a commercial production start in 2027, and aims for a production target capacity of approximately 24,000 tpa LHM as well as more than 275 GWh/a of renewable power and more than 560 GWh/a of renewable heat production capacity. Vulcan Group intends to develop further phases across its licence area, as the Company plans to grow production in a staged, modular fashion. Whilst Vulcan Group has a target to develop a new phase of production every few years, the development of any further expansion beyond Phase One remains subject to availability of funding, and the exact timing is still to be defined.

The Company has been listed on the ASX since May 2018, initially with a company name of Koppar Resources Limited (ASX Code: KRX) and since September 2019 as Vulcan Energy Resources Limited (ASX Code: VUL). Since the completion of its initial listing on the regulated market (*Regulierter Markt*) of the FSE, the Company believes it is the first Australian company to have a listing on the regulated market (*Regulierter Markt*) of the FSE. The Company has its headquarters in Perth, Australia, and its principal subsidiaries focused on the development of geothermal and lithium projects are based in Karlsruhe, Germany. In addition to its consolidated subsidiaries, Vulcan Group also holds a minority interest in Kuniko, an ASX-listed company focused on developing hard-rock battery metals projects in Scandinavia. Kuniko was originally a wholly owned subsidiary of the Company. In April 2021, the Company announced the planned spin-off of Kuniko (containing Vulcan Group's non-core Norwegian battery metals assets) in order to focus on the Project. The spin-off was executed by means of an initial public offering of Kuniko on the ASX, which was completed in August 2021.

As Vulcan Group is currently still in the development phase in its lithium business, it did not generate any significant revenues in the last four financial years, with revenue from continuing operations of EUR 3,799,000, EUR 3,622,000, EUR 6,783,000 and EUR 3,753,000 generated in FY22, SFY22, FY23 and H1/FY24, respectively. As of the date of this Prospectus, Vulcan Group has a total of approximately 350 employees (full-time equivalents) based in Australia and Germany.

8.1.2 Recent Corporate Acquisitions

In order to advance its lithium and geothermal energy exploration activities, Vulcan Group has undertaken the following strategic corporate acquisitions within the last three years.

8.1.2.1 Natürlich Insheim GmbH

In December 2021, the Company's wholly owned indirect subsidiary VER GEO LIO acquired from Pfalzwerke Aktiengesellschaft ("**Pfalzwerke**") 100% of the shares in Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH) for a purchase price of EUR 31.3 million (after purchase price adjustments) (the "**Insheim Acquisition**"). Natürlich Insheim owns and operates a deep geothermal power plant in Insheim, Germany (the "**Insheim Plant**"), which operates with a thermal water temperature of 165°C, with the technical ability to produce a maximum of 4.8MW power or 28.5MW thermal energy (currently producing approximately 2.9MW of electricity on average). The Insheim Plant has the capacity to supply approximately 8,000 households with electricity and approximately 600-800 households with heat, and has been a source of revenue for Vulcan Group since its acquisition, representing EUR 2,223,000 in revenue for the period from 1 January 2024 to 30 June 2024, EUR 4,036,000 in revenue for FY23, EUR 3,128,000 in revenue for SFY22, EUR 2,977,000 in revenue for FY22 (following its acquisition in December 2021). In addition, Natürlich Insheim holds a production licence (the "**Insheim Licence**"), which grants Natürlich Insheim the exclusive right to geothermal energy from brine extracted from the site of the Insheim Plant.

8.1.2.2 geox GmbH

On 27 September 2024, Vulcan Group entered into an agreement to acquire 100% of the shares in geox from IKAV Invest S.à r.l. and Geysir Europe GmbH (together the "**IKAV Group**") for a purchase price estimated at EUR 15 million to be paid as a deferred payment. geox holds a production licence for the extraction of geothermal energy and brine in the Landau-Süd field with expiry date May 2034

(the "**Landau Süd Licence**") and an exploration licence for lithium chloride in the Ilka field (the "**Ilka Licence**"), which are expected to contribute to approximately 20% of planned brine production for Phase One. geox also owns two geothermal wells (and has the capacity to develop additional wells) that will pump geothermal energy and brine into the Lionheart geothermal plant. The acquisition of geox is subject to completion, pending certain outstanding transfer procedures.

8.1.2.3 Other Acquisitions

In November 2021, Vulcan Group acquired two electric drill rigs which can drill to the target depth required for deep geothermal energy wells in the Upper Rhine Valley of Germany.

Effective February 2023, Vulcan Group acquired Comeback to insource drilling personnel capabilities. Vulcan Group has capitalised on Comeback's capabilities in order to expand its workforce, particularly of qualified drill personnel for the drill rigs acquired by Vulcan Group, by adding approximately 45 personnel to Vulcan Group's in-house development drilling team.

8.1.3 Vulcan Group's Mission to implement the Project

Vulcan Group has a clear goal to become the world's first integrated lithium chemicals and geothermal renewable energy producer with a carbon neutral footprint, by (i) creating the world's first integrated lithium chemicals and geothermal renewable energy producer (also on track to become Europe's first fully domestic sustainable lithium chemicals producer) and (ii) featuring outstanding sustainability credentials, as evidenced by (a) the lowest greenhouse gas footprint per tonne LHM to be produced for a lithium company according to Benchmark Mineral Intelligence and (b) the world's first S&P Global "Dark Green" rating for a mining and metals company (which is awarded to companies dedicated to the long-term vision of a low-carbon, resilient future).

To implement its Project, Vulcan Group has progressed and plans to continue to progress the Project by conducting industry-standard feasibility studies. A "preliminary feasibility study" (or "pre-feasibility study") of a mineral deposit is undertaken to determine what portion of the mineral resources may be converted to ore reserves. Following the preliminary feasibility study, a company may undertake further technical and economic studies of the project (generally known as a "definitive feasibility study") to demonstrate that, at the time of reporting, the project is economically mineable. A "definitive feasibility study" is of a higher level of confidence than a pre-feasibility study, and the results of the study often serve as the basis for a final decision by the company to proceed with, or a financial institution to finance, the development of the project. Both pre-feasibility studies and definitive feasibility studies include economic and financial analyses based on certain assumptions relating to extraction, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors, as well as any other relevant factors as determined by a qualified minerals industry professional (known as a "competent person").

8.1.3.1 Definitive Feasibility Study (February 2023)

In February 2023 (following successful completion of a pre-feasibility study in January 2021), the Company completed a DFS for Phase One. The results of the DFS were released to the market after they were finalised. However, investors should not rely on the results of the DFS as the Company considers that the material assumptions underpinning the DFS to be no longer correct in light of the additional studies undertaken in preparing the Bridging Study for Phase One and further developments since the DFS was published.

8.1.3.2 Bridging Engineering Study for Phase One (November 2023)

In November 2023, the Company completed a Bridging Engineering Study across the entire integrated operation for Phase One. The results of the Bridging Engineering Study were released to the market after they were finalised. While the DFS envisioned that Phase One would include the construction of two geothermal plants and two LEPs (in addition to the CLP), Vulcan Group has pursued a number of value improvements during the bridging engineering work with Hatch Ltd. The bridging engineering work informed, and resulted in, the Bridging Study for Phase One which consolidated these into one geothermal plant and one LEP (in addition to the CLP) while targeting the same level of production as envisioned in the DFS.

The Bridging Study also resulted in an increase in the resources and reserves for Phase One to 0.57 Mt LCE at 181mg/l Li (centred around current production wells in the core of the URVBF field) with a resource of 4.16 Mt LCE at 181mg/l Li (with 2.11 Mt LCE now in the measured category). This resulted in an increase of the overall lithium resource estimate to 27.7 Mt LCE comprising 11.2Mt

LCE of measured and indicated resource and 16.5Mt LCE of inferred, at a grade of 175 mg/l Li (source: Bridging Study).

The results of the Bridging Study were released to the market after they were finalised. For further information (including as it relates to Vulcan Group's approach towards and the results of the Bridging Study), see the Competent Person Report included in this Prospectus.

8.1.3.3 Validation / New developments since the Bridging Study

In the period since the completion of the Bridging Study, Vulcan Group has focused on the pre-requisite engineering development required to secure permitting for the proposed assets. Vulcan Group has been successful in achieving the approval of the D12 Development Plan (for the Geothermal Lithium Extraction Plant) at Landau, as well as a number of permit submissions and approval receipts, as detailed below in Table 15.

Table 15 Permit submissions and approval receipts at Landau

Portfolio	Sub- Project	Submitted Permits	Authority	Status	Submission
GLEP	ORC	Building permit ORC	BA Landau ⁽¹⁾	In progress	Nov-23
GLEP	110KV	Building permit 110 KV	BA Landau ⁽¹⁾	In progress	Nov-23
GLEP	LEP	Building permit LEP	BA Landau ⁽¹⁾	In progress	Dec 23
CLP	-	BImSchG CLP early works	RP DA ⁽²⁾	In progress	Apr-24
CLP	-	BImSchG CLP	RP DA ⁽²⁾	In progress	Apr-24
GLEP	LEP	Main Operating Plan LEP construction	LGB ⁽³⁾	In progress	Sep-24
Wells	Trappelberg	Main Operating Plan Trappelberg (including well pad and drilling 1+2)	LGB ⁽³⁾	In progress	Nov-24
Wells	40Morgen	P-EIA 40 Morgen	LGB ⁽³⁾	Approved Nov-24	
Wells	Schleiberg	SOP well site construction	LGB ⁽³⁾	Approved Apr-24	-
Wells	Landau	SOP Work over of GtLA1	LGB ⁽³⁾	Approved Jun-24	-
Wells	Schleiberg	SOP Groundwater monitoring	LGB ⁽³⁾	Approved Aug-2024	-
ICPP	Validation Loop	SOP Validation Loop	LGB ⁽³⁾	Approved Aug-24	-
Wells	Schleiberg	SOP Deep drilling 1+2	LGB ⁽³⁾	Approved Sept-24	-
Wells	Trappelberg	UVPV Wells 1-6	LGB ⁽³⁾	Approved Oct-24	-
GLEP	ORC	BImSchG §23a	SGDSüd ⁽⁴⁾	Approved Nov-24	-

(1) Planning department Landau.

(2) Regional Council Darmstadt.

(3) State Office for Geology and Mining Rhineland-Palatinate.

(4) Southern Structure and Authorisation Directorate Rhineland-Palatinate.

In Vulcan Group's opinion, these achievements have continued to de-risk Phase One of the Project, shown the commitment of the appropriate authorities and regional government such as the City of Landau and the City of Frankfurt, as well as Vulcan Group's ability to meet the strict requirements necessary to operate in the region. These permitting achievements are intended to set Vulcan Group up to be ready to execute the Phase One of the Project, beginning with drilling the first well on the program at Schleiberg.

Post Bridging Study, Vulcan Group has continued to develop the necessary engineering to finalise the interconnecting, power and pipelines distribution network within the Phase One development;

defining the pipeline routing; in order to obtain land rights and define permitting requirements, whilst simultaneously finalising design aspects, leading to an ongoing tendering program for execution of the scope.

In the process plants, Vulcan Group has worked to select and sign technology partnership agreements, namely Jord Proxa, NESI, and Turboden, (the "**Organic Rankine Cycle**") power plant respectively. In addition, memoranda of understanding leading to technical partnerships have been established with Pfalzwerke, for power infrastructure at the GLEP site, Infraser for utilities supply in Höchst, as well as ABB for the supply of electrical supply and control technology and services across the integrated Project. Finally, after a comprehensive EPCM bidding exercise, Vulcan Group has proceeded with a validation exercise for the EPCM services for the LEP and CLP with Sedgman/Hochtief, to validate current scope, cost and schedule for those scopes and to conclude readiness for execution.

During these exercises, Vulcan Group has continually performed design optimisation and development activities in partnership with its contractors to realise the design within the boundaries set by the Bridging Study, which has been validated in the intervening time since Bridging Study closure.

In addition on 20 November 2024, Vulcan Group entered into a staged agreement with the world's largest chemicals producer, BASF SE ("**BASF**"), to collaborate on the development of a renewable heat project to supply BASF's Verbund site Ludwigshafen with baseload heat and incorporates the potential construction of a commercial LEP in Ludwigshafen, BASF's global headquarters and home to the largest integrated chemical complex globally.

A comparison of the estimated Project economics is shown in Table 16 below.

Table 16: Projected Project economics in Phase One at the End of Validation (EOV)^(1, 2)

Estimated Project economics at the End of Validation	
Average revenue over the life of Project	€756 million p.a.
Average EBITDA over the life of Project	€582 million p.a.
Average EBITDA% over the life of Project	77%
Capital expenditure	€1,431 million
Operating expenditure (C1) ⁽³⁾	€4,030/t LHM
NPV ₈ pre-tax	€3,467 million
NPV ₈ post-tax	€2,173 million
Internal rate of return pre-tax	21.7% unlevered 26.2% levered
Internal rate of return post-tax	17.8% unlevered 20.7% levered
Average 10-year LHM realised price €/t ⁽⁴⁾	€22,355/t LHM

Note: (1) The ability of the Company to realise the target project economics is subject to a number of risks and uncertainty and to the Company securing sufficient financing to fund the required project costs. (2) Vulcan confirms that all the material assumptions underpinning the forecast financial information for the EOV economics above are set out in the Competent Person Report (section 17 "Annex: Competent Person Report"). (3) C1 costs include power, maintenance, labour, materials, reagents, sorbent, utilities, logistics, and other fixed costs, excluding inflation. (4) Average realised lithium price from offtakes and forecast combined.

The estimated Project economics at the EOV are summarised in Table 16. The EOV modelling assumptions adopt the latest (third quarter of 2024) LHM pricing forecast, based on the average of

the three base case forecasts from Wood Mackenzie, Fastmarkets and BMI, and includes non-material updates to capital and operating expenditure

8.1.3.4 Implementation of the Project based on the Bridging Study for Phase One

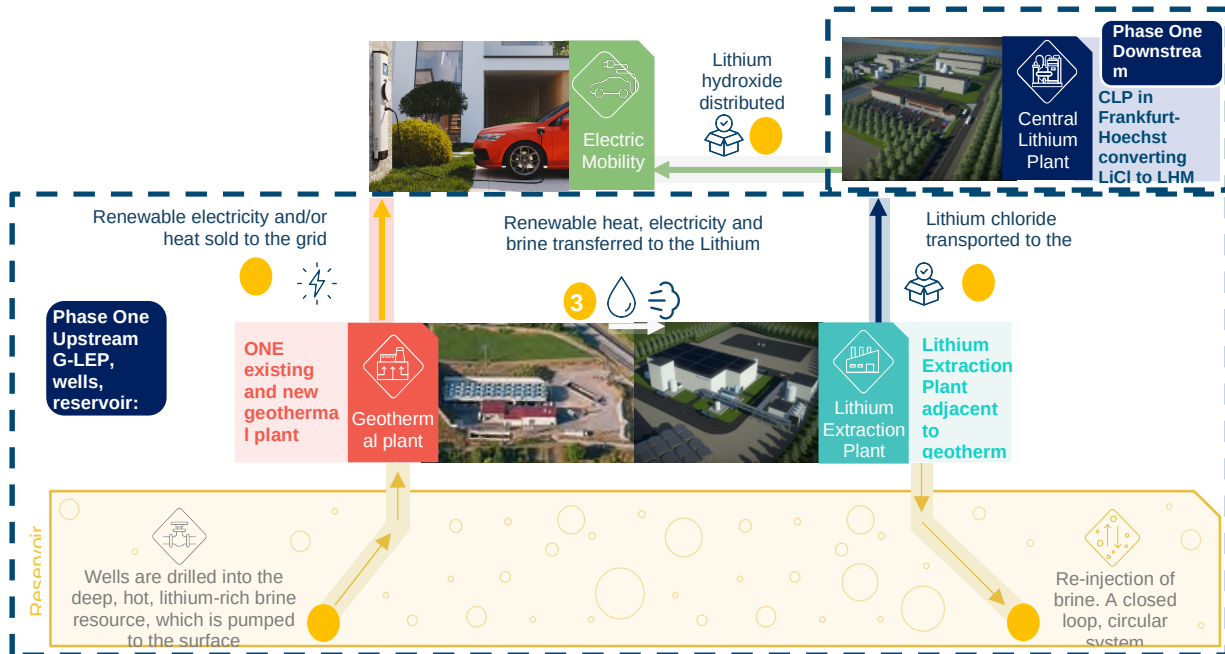
The planned project remains based on Vulcan Group's patented production process flowsheet (see section "*8.12 Intellectual Property*"), which comprises the following three steps each occurring at a different plant:

1. *Binary Cycle Geothermal Plant*: Hot brine is extracted from the ground and generates steam that powers turbines and produces renewable electricity using standard geothermal production.
2. *Lithium Extraction Plant/ A-DLE Plant*: Brine flow is diverted, and lithium is extracted from the solution using the adsorption-type DLE process (A-DLE) which has been used commercially for decades on continental-style brines in South America, and more recently in China.
3. *Central lithium plant*: Lithium chloride is then sent to the lithium refining plant to be converted into battery-quality LHM, using lithium electrolysis.

Vulcan Group's process flowsheet

Figure 7 illustrates a simplified image of the Project:

Figure 7: Simplified process flowsheet



Note: LEP = Lithium Extraction Plant, CLP = Central Lithium Plant

Vulcan Group's planned production process starts with the brine extracted from each well, which runs through a heat exchanger at each well site, where the saleable heat is transferred via the heat exchanger to an industrial water cycle. Hot industrial water is then piped, alongside warm, lithium-rich brine, to a site where a geothermal plant and lithium extraction plant are co-located. The heat is then utilized for geothermal power generation at the ORC plant. The brine is sent to the LEP where it is sent to the A-DLE system. The lithium chloride is recovered on a selective alumina-based sorbent and purified. The concentrated lithium chloride is then transferred to the CLP for conversion to LHM.

The Project is designed to be a carbon neutral and low water consumption project, according to the ISO-compliant first life cycle assessment ("LCA") method.

Pursuant to the Bridging Study and work to date including during the validation period, the implementation of Phase One includes the construction of:

- five new wellsite developments and redevelopment / updating of two existing wellsite locations;
- integrated power and control network; and interconnecting pipeline heat and lithium brine collection and transportation network;
- one new geothermal plant which (together with the existing Insheim Plant) is planned to have a combined production capacity of more than 275 GWh/a of energy and more than 560 GWh/a of heat capacity;
- one LEP with a targeted production capacity of 24,000 tpa LHM-equivalent of LiCl concentrate; and
- a CLP (industrial park Frankfurt-Hoechst) with a targeted production capacity of 24,000 tpa of LHM.

The Project is expected to average approximately EUR 756 million of revenue per annum over the life of the Project from the revised financial modelling after the EOV process, and based on an updated basket of price forecasts from three independent market experts (Wood Mackenzie, Fastmarkets and BMI).

According to Vulcan Group's models and estimates total Phase One capital expenditure is expected to be approximately EUR 1,431 million. Total funding requirements also include financing costs of approximately EUR 270 million, additional contingency and standby facilities required by financiers of approximately EUR 241 million, owner's costs of approximately EUR 180 million, and debt service reserve account (DSRA) and ramp up costs of approximately EUR 103 million. However, the exact amount of future capital requirements may significantly deviate from Vulcan Group's estimates and additional funds may be needed to develop future phases of the Project and to extract and process the lithium and geothermal energy. In particular, as the Company has not completed a definitive feasibility study in relation to the Project's future phases, there remains significant uncertainty regarding the funding requirements beyond Phase One.

Following the end of validation review ("**EOV Review**"), Vulcan Group's LHM production is targeted to entail average operating expenditure in 2030 (excluding corporate overhead costs) of approximately EUR 4,030 per tonne of LHM (excluding inflation), including EUR 1,965 per tonne for the DLE process at the LEPs and EUR 2,065 per tonne for processing at the CLP (electrolysis). In Vulcan Group's view, BMI's projections of the lithium market (as per the BMI Analysis) and the Bridging Study have demonstrated that its Project has the potential to be one of the lowest cost operations relative to peers.

The project economics estimates the Project to generate an average earnings before interest, tax, depreciation and amortisation (EBITDA) of approximately EUR 582 million per annum, translating into an EBITDA margin of circa 77% over life cycle of Phase One of the Project. e

These financial estimates and targets translate, pursuant to the position at the end of validation for Phase One, into a net present value using a discount rate of 8% ("**NPV₈**") of the Project amounting to EUR 3,467 million (pre-tax) and EUR 2,173 million (post-tax). The estimated internal rate of return ("**IRR**") amounts to 26.2% levered (or 21.7% unlevered) on a pre-tax basis, and 20.7% levered (or 17.8% unlevered) on a post-tax basis.

8.1.3.5 Funding on Company Level and on Project Level

According to Vulcan Group's models and estimates total Phase One capital expenditure is expected to amount to approximately EUR 1,431 million. Total funding requirements also include financing costs of approximately EUR 270 million, additional contingency and standby facilities required by financiers of approximately EUR 241 million, owner's costs of EUR approximately 180 million and debt service reserve account and ramp up costs of approximately EUR 103 million.

On the basis that subsequent phases are targeted to achieve similar production levels as, and in addition to those of, Phase One, the Company currently anticipates a materially similar additional amount to be required for future phases (subject to the completion of a definitive feasibility study). However, as the Company has not completed a definitive feasibility study in relation to the Project's future phases, there remains significant uncertainty regarding the funding requirements for future phases beyond Phase One. The exact amount of capital expenditure required for future phases will be refined as the Company advances the Project. Vulcan Group intends to plan further phases across its licence areas, as Vulcan Group plans to grow production in a staged, modular fashion. The ability to develop the Project beyond Phase One will depend on the availability of future funding sources.

Vulcan Group intends to fund the planned investments to implement Phase One of the Project through a combination of debt financing at the project level as well as equity financing at the project and Company level.

In September 2024, Vulcan Group has entered into a credit facility with BNP Paribas in an amount of up to EUR 10 million (the "**BNP Paribas Facility**") to provide short term flexibility prior to completion of the process to obtain Envisaged Debt Financing and Envisaged Equity Financing of Phase One of the Project described below. The BNP Paribas Facility is currently undrawn.

Proposed Arrangements for Envisaged Debt Financing and Envisaged Equity Financing

In May 2024, Vulcan Group announced the launch of its final stage project-level debt and equity financing process, building on the funding received to date from strategic investors.

Envisaged Debt Financing

With respect to debt financing at the project level, Vulcan Group has received a conditional commitment letter from a number of institutions (including Export Finance Australia and commercial banks) covering a debt financing amount of EUR 879 million. This commitment follows approval received from European Investment Bank's (EIB) Board to participate in the Project up to a EUR 500 million lending envelope (including targeting up to EUR 250 million direct lending). Vulcan Group is seeking additional approvals from Export Development Canada (EDC), Bpifrance AE, the Italian export credit agency (SACE) and other commercial banks to participate in the debt financing, to reach a target total debt package commitment of approximately EUR 1.5 to 1.6bn (together, the **"Envisaged Debt Financing"** in the first half of 2025).

The borrower under the Envisaged Debt Financing is VER GEO LIO GmbH, a wholly owned indirect subsidiary of the Company. The current terms of the Envisaged Debt Financing provide for an interest rate tied to the EURIBOR (plus a margin) and a maturity until 30 September 2037. The covenant package provided in the current terms include (a) that the Vulcan Group maintains a certain debt service coverage ratio (both historical and projected) and a certain loan life coverage ratio, (b) that the ratio of lithium carbonate reserves of the project compared to the initial reserves determined at financial close does not drop below a certain level, and (c) a change of control provision that requires the consent of the financing banks, inter alia, if the Company no longer maintains a minimum shareholding interest in Vulcan Group obligors and shareholders in the borrower under the Envisaged Debt Financing Arrangements. In the event of a covenant breach, the financing banks may terminate the Envisaged Debt Financing arrangements and declare the outstanding loans together with interest accrued thereon due and payable within a short period of time. The security package in respect of the Envisaged Debt Financing is intended to be a customary all assets security package, including the shares pledges over the entities holding the project assets.

As at the date of this document, the Envisaged Debt Financing remains subject to finalisation, including alignment of key outstanding matters, final credit committee and/or board approval, definitive agreements, and satisfaction of conditions precedent and accordingly there is no certainty that the Envisaged Debt Financing will be obtained from the abovementioned financiers or on the terms currently being discussed or at all, or in relation to the timing for the receipt of credit approved term sheets and debt commitment letters from the respective financiers, see section *"1.3.1 Significant funding will be required by Vulcan Group to support the further implementation of the Project. If Vulcan Group is unable to enter into the envisaged financing agreements or to comply with the terms of the existing financing arrangements or those financing agreements it intends to enter into with various lenders at the project level or to obtain additional financing as needed on acceptable terms or at all, it may need to abandon its development plans or reduce and/or change their scope which may, in turn, adversely affect Vulcan Group's operations."*

Vulcan Group may also consider the bond market once in production, in view of the increasing market demand for bonds that meet Environmental, Social, and Governance ("**ESG**") criteria and the availability of longer-term yields in the bond market as compared to project finance (high yield) bonds. In October 2024, Vulcan Group's Sustainability and ESG Framework has been assessed by leading independent ratings agency, S&P Global Ratings, and been awarded a "Dark Green" rating overall and, in December 2023, ERM has completed its environmental and social impact assessment ("**ESIA**") for Phase One of the Project. The ESIA is a prerequisite to the raising of sustainable or "green" debt finance and is an important third-party validation of the sustainability credentials of the Project. The ESIA was updated on 16 September 2024.

Envisaged Equity Financing

In parallel with the debt financing process described above, Vulcan Group has also launched the second phase of its equity financing process to seek the required amount of equity for Phase One of the Project in conjunction with the Envisaged Debt Financing.

In relation to equity financing for Phase One of the Project, Vulcan Group targets gross proceeds of approximately EUR 625 – 725 million (the **"Envisaged Equity Financing"**), which shall also include the proceeds arising from the Equity Raising (as defined below) and certain public grants.

In relation to grants, Vulcan Group has been granted EUR 100 million from the German Federal Ministry of Economics and Climate Protection and the European Recovery and Resilience Facility via the German Recovery and Resilience Plan for its HEAT4LANDAU Project within the Framework of Federal Funding for Efficient Heating Network ("**Public Grant**"). Heat4Landau aims to produce and

deliver geothermal heat for decarbonising the district heating system of the City of Landau. The treatment of this grant for project financing purposes is currently being negotiated with debt financiers. Should the Company be successful in additional grant applications, these funds could be partially or fully deducted from equity and debt requirements.

In relation to the balance of the Envisaged Equity Financing (after the receipt of proceeds of the Equity Raising and potentially the Public Grant), the Company has received interest from strategic and financial investors following an initial due diligence process. Vulcan has received a range of non-binding offers from potential strategic partners at both the Company and project level, which it continues to assess, and Vulcan is currently targeting to finalize agreements for the Envisaged Equity Financing in the first half of 2025.

As at the date of this Prospectus, other than in relation to the Institutional Offer and the Public Grant, the Company has not entered into any binding agreements for the required remaining equity financing for Phase One of the Project. Accordingly, the Envisaged Equity Financing is subject to finalization (including as to structure), investor board approval, definitive agreements and satisfaction of conditions precedent and there is no certainty as to the ultimate form and terms of the Envisaged Equity Financing or the timing for entry into binding agreements in relation to the Envisaged Equity Financing, see section "1.3.1 Significant funding will be required by Vulcan Group to support the further implementation of the Project. If Vulcan Group is unable to enter into the envisaged financing agreements or to comply with the terms of the existing financing arrangements or those financing agreements it intends to enter into with various lenders at the project level or to obtain additional financing as needed on acceptable terms or at all, it may need to abandon its development plans or reduce and/or change their scope which may, in turn, adversely affect Vulcan Group's operations."

8.1.3.6 Phases and timeline

Vulcan Group currently aims to commence commercial production for Phase One in 2027 (being approximately 30-33 months from the receipt of funds from the Envisaged Equity Financing. For the next five years, Vulcan Group has the following key measures planned, which the Company expects to commence at the indicative times as set forth below.

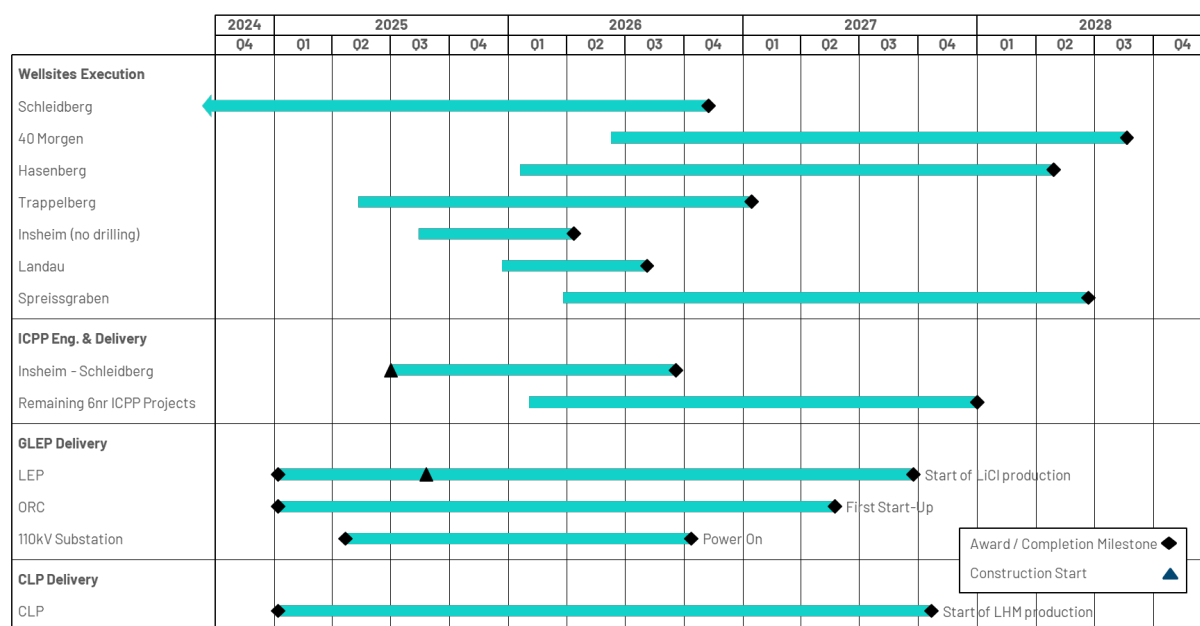
- Complete the Institutional Offer and the broader Equity Raising.
- Complete the project level equity and debt financing.
- Commence execution of Phase One of the Project.
- Obtain relevant permits in line with development timeline.
- Commence commercial production of battery-grade LHM for Phase One.
- Longer term: Evaluate and pursue potential future phases of production and development opportunities to establish additional geothermal / lithium production areas with a carbon neutral footprint.

Phase One has an expected duration of approximately 30 years from the date of commencement of commercial production.

In the below risked schedule (see Figure 8 below) the commencement date has been set after 30 - 33 months from the expected receipt of funds from the Envisaged Equity Financing. The following timeline illustrates the various expected stages for the implementation of the Project.

The Phase One (Lionheart) project has continued to progress since BES, with Vulcan Group working to derisk the Project from Vulcan Group's own cash position. This has successfully enabled the Project to reach the end of validation stage, where Vulcan Group is ready to proceed with the full scope subject to financing completion. The below schedule is the position at the end of the validation period.

Figure 8: Phase One project timeline



Progress continues on Phase One execution, including engineering works, permitting and land acquisition for remaining Phase One areas, as Vulcan Group transitions into project execution.

Vulcan Group intends to plan further phases across its licence area, as Vulcan Group plans to grow production in a staged, modular fashion.

For further information (including as it relates to the economic analysis included in the Bridging Study and the EOVR Review) see the Competent Person Report (set out in an annex to this Prospectus), in particular section "1.10 ECONOMIC ANALYSIS" of the Competent Person Report.

8.2 Competitive Strengths

Vulcan Group believes that the following competitive strengths will allow it to execute its business strategy and will set it apart from its competitors in the future:

8.2.1 Clear goal and strategy built around implementing the world's first carbon neutral footprint integrated lithium hydroxide production project.

Vulcan Group believes that its proprietary processing technology, combined with its dual purpose geothermal-lithium resource in the Upper Rhine Valley (see section "8.5.3 Upper Rhine Valley"), will allow it to produce lithium chemicals with a carbon neutral footprint. Vulcan Group's proprietary process aims to allow for quick processing time by using direct precipitation, for which the evaporation process is driven by steam in contrast to sunlight for solar evaporation, enabling Vulcan Group to be responsive to market needs, unlike current South American salt flat evaporative and reagent-based production ("Salar") which takes longer (up to 18 months), is more carbon-intensive when using reagents for lithium extraction, and is vulnerable to weather events. Salar lithium operations in South America are typically carried out at over 3,000m above sea level and use large quantities of soda ash which need to be transported to remote locations, resulting in a substantial carbon footprint (approximately 5tCO₂/t LiOH). Salar operations also use large amounts of water (approximately 450m³/t LiOH) in some of the driest places on earth (source: BMI Analysis). In contrast to current hard-rock lithium operations, which generally have a high carbon footprint (approximately 15tCO₂/t LiOH) due to their processing methods and long transport distance to customer markets, the location of Vulcan Group's dual purpose geothermal-lithium project in the Upper Rhine Valley gives Vulcan Group's Project the potential advantage of a very short product transport distance for servicing the German and European automotive industry. Vulcan Group's Project is also located in the heart of the EU's emerging battery and cathode "mega" and "giga" factories, and within easy range of electric transport to battery and cathode factories. Vulcan Group's business aims to fill the market gap in Europe, where OEMs are currently still greatly reliant on imported lithium hydroxide products.

The Company expects that the implementation of an integrated lithium chemicals production and renewable energy business will make Vulcan Group's Project the world's first carbon neutral footprint integrated lithium chemicals production project. At a time of increasing global focus on decarbonisation across all supply chains, Vulcan Group intends to capitalise on its first mover position, in particular as a favoured supplier to European buyers of lithium chemicals, who have publicly stated their preference for local and sustainable sources of lithium (source: BMI Analysis). It also means Vulcan Group could be potentially positively exposed to a rising carbon price, if carbon pricing is factored into the lithium supply chain. Vulcan Group aims to become the world's first integrated lithium chemicals and geothermal renewable energy producer with a carbon neutral footprint for the burgeoning European BEV market, which the Company believes is a clear selling point for EV-producing manufacturers which Vulcan Group intends on assisting in reaching their sustainability targets by offsetting CO₂ against the rest of their supply chain (see section "7.3.2 Benefits of carbon neutral lithium"). Additionally, Vulcan Group is seeking trademark protection for its V-LiON logo. If such registration is successful, Vulcan Group intends to licence the trademark to customers, allowing them to show electric vehicle consumers that they are working on improving their carbon footprint by working with suppliers offering greener and more sustainable products.

Vulcan Group believes that market trends and macro-policy settings underpinning Vulcan Group's Project have continued to strengthen in the recent past and Vulcan Group expects these trends and developments to provide further tailwinds to its goal to implement its carbon neutral footprint lithium production project.

8.2.2 Well-positioned to capitalise on the expected dynamic transition to electric mobility and renewable energy in Europe, through the ability to offer a sustainable lithium product from Phase One of the Project.

Vulcan Group believes that the anticipated convergence of policy, technological developments and significant growth in the demand for electric vehicle batteries (see section "7.1 Lithium demand") and energy storage batteries will be a key driver for the projected eight-fold growth for the demand for battery-quality LHM in Europe (source: BMI Analysis). Subject to successful development of its Project, with a secure, domestic lithium supply in the Upper Rhine Valley of Germany for the burgeoning European BEV market (see section "8.2.4 Strategically located and scalable lithium raw materials resource, estimated by the Company to be the largest lithium resource in Europe as at the date of this Prospectus."), Vulcan Group believes it is well-positioned to capitalise on the strong growth anticipated in lithium consumption by end markets, primarily including the BEV market. Vulcan Group also believes the European Green Deal (see section "10.1.1 New Battery Regulation") further cements the growth market conditions for battery metals in Europe.

Vulcan Group's lithium resource in the Upper Rhine Valley and its extraction and processing expertise, combined with the availability of renewable heat to drive the process, potentially position Vulcan Group to be able to manufacture a product with low impurities to meet stringent demands of major battery materials manufacturers.

8.2.3 A business model with dual revenue sources through its lithium and renewable energy business that also provides potential for a degree of moderation from lithium and energy price fluctuations.

Vulcan Group plans to produce and sell both lithium chemicals for the battery market and renewable energy (heat and power), with lithium sales providing most of the expected revenue. Vulcan Group currently intends to sell the electricity produced by the geothermal plants to the grid at the feed-in tariff or higher market prices. Moreover, Vulcan Group expects to utilise a portion of the heat produced by the geothermal plants for its lithium extraction operations, with the remainder sold directly to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses. Through such potential for moderation from energy price fluctuations and diversification of revenue, Vulcan Group expects, unlike other traditional suppliers, to be able to mitigate its dependency on both the lithium and energy price environments to a greater degree than traditional lithium suppliers, who are focused solely on lithium production and largely dependent on external energy supply. In addition, Vulcan Group's lithium offtake agreements provide some downside protection from lithium market prices during the first few years of production. Prices for both lithium and energy have been, and may continue to be, volatile. Vulcan Group expects that prices for lithium compounds will continue to be influenced by various factors, including worldwide supply and demand as well as the business strategies of major producers. With access to a large scale and stable supply of lithium raw materials from a source that may also be exploited for the

production of renewable energy, the Company believes that Vulcan Group is well positioned to diversify its business while avoiding a dependency on energy prices or a single source of revenue.

8.2.4 Strategically located and scalable lithium raw materials resource, estimated by the Company to be the largest lithium resource in Europe as at the date of this Prospectus.

Access to an adequate supply of lithium raw materials is crucial to achieving business size and growth and vital for Vulcan Group's stable business operations in the lithium products industry. Vulcan Group has a total lithium resource estimate of 27.7 Mt LCE at a grade of 181 mg/l Li (comprising 11.2 Mt LCE of measured and indicated mineral resources and 16.5 Mt LCE of inferred mineral resources, and including proven and probable ore reserves of 0.57 Mt LCE in Phase One licences only), which, on a LCE basis, is estimated to be Europe's largest lithium resource (according to public information, as estimated and reported in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves JORC Code (source: Bridging Study; see section "2.10 References regarding mineral resources, ore reserves and production targets" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus. This large size means that, subject to the right geological conditions and availability of suitable land, Vulcan Group potentially has the ability to scale up its operations with the addition of more geothermal-lithium operations in the future while maintaining a stable supply of lithium raw materials. This is in contrast to smaller, hard-rock lithium projects in Europe (for example pegmatite-hosted spodumene deposits) which, due to their size, have limited ability to scale up operations in the future, and require chemical conversion capacity which does not currently exist. Additionally, hard-rock lithium projects have a significant surface impact from mining operations, which makes new projects unpopular in Europe. With access to a European source for lithium brine extraction, Vulcan Group has secured a strategically located lithium raw materials source which positions it well to develop a potentially scalable business (see section "7.2 Lithium supply / demand balance").

8.2.5 Potential to be a low operating cost lithium business, according to Vulcan Group's Bridging Study.

The Bridging Study (and the EOV Review) has demonstrated that, due to the availability of pre-heated brine and steam, and therefore reduced energy costs – as well as the availability of brine from the geothermal operation for use in the lithium operation without incremental cost – the planned Phase One of the Project is expected to have low operating costs once in production in comparison to competitors (see section "7.3.3 Low-cost lithium production"). This factor gives Vulcan Group a potential competitive advantage over other, high-cost sources of lithium supply in the future, especially during periods of lower lithium price environments.

8.2.6 Experienced and committed international management and execution team.

Vulcan Group has a strong management team overseeing its different business sectors from a variety of different sectors and backgrounds related to Vulcan Group's business, including large scale energy infrastructure development, commercial lithium industry, chemical engineering, geothermal development and operations. These include Vulcan Group's CEO Cris Moreno, Executive Director and Group CFO Felicity Gooding (to be appointed as of 1 January 2025), Chief Technology Officer Dr Stefan Brand, Chief Development Officer Thorsten Weimann, Vice President Subsurface Dr Kerstin Müller, Vice President Project Execution Carsten Bachg and Vice President Production Dr Christian Tragut. Vulcan Group has a diverse skill set and experienced Board of Directors, including a senior executive of Evonik and a former Ernst & Young ("**EY**") senior partner who led and delivered the EY Global Renewables and Sustainable Business Plan. In addition, Vulcan Group has a capable and experienced technical team across the fields of geothermal energy development, including geology and engineering, and lithium extraction (chemistry and chemical engineering). Both the fields of deep geothermal energy development and DLE are specialised industries, with a relatively small pool of expertise. Having this expertise in-house places Vulcan Group at a potential competitive advantage.

8.2.7 Dedicated "Vulcan Values" shape the Company's culture and inform the Company's strategy.

Vulcan Group has defined three core values, referred to as "Vulcan Values", which shape the Company's culture and inform the Company's strategy. The "Vulcan Values" are Climate Champion,

Determined, and Inspiring. The "Vulcan Values" help the Company to stand out in the "war for talent", allowing it to recruit and retain the talent and expertise needed for the development of its Project (see section "8.8 Environmental, Social and Governance (ESG)").

8.2.8 Distinct international profile and track record of strong strategic and institutional investor support.

The Company believes that it has a distinctly international profile and a proven track record of support by reputable strategic and institutional investors.

The Company has been listed on the ASX since May 2018, initially with a company name of Koppar Resources Limited (ASX Code: KRX) and since September 2019 as Vulcan Energy Resources Limited (ASX Code: VUL). The Company's listing on the ASX has allowed the Company and Vulcan Group's Project to gain additional visibility among the Australian investment community and beyond.

Since the completion of its initial listing on the regulated market (*Regulierter Markt*) of the FSE, the Company believes that it is the first Australian company to have a listing on the regulated market (*Regulierter Markt*) of the FSE. In the Company's view, its dual-listing on both the ASX and the regulated market (*Regulierter Markt*) of the FSE has increased the international profile of Vulcan Group and enabled access for investment into the Company for the full range of the European and broader investment community.

Until today, Vulcan Group has been able to get the support of reputable strategic and institutional investors as evidenced by the investments of, for example, HHPL, Stellantis, Hochtief and Victor Smorgon Group.

8.3 Strategy

Vulcan Group is aiming to become the world's first lithium chemicals and renewable energy producer with a carbon neutral footprint targeting commencement of commercial production from Phase One in 2027. Vulcan Group's unique Project aims to produce both renewable geothermal energy, and LHM, from the same deep brine source. In doing so, Vulcan Group intends to address the European market's lithium requirements while reducing the high carbon and water footprint of production (as compared with other methods of lithium production) and addressing the European market's current total reliance on imports. In particular, Vulcan Group aims to supply the BEV market in Europe. The Project, which is based on a 30-year project, asset and infrastructure life, has an estimated resource which could potentially meet a significant part of Europe's needs for the electric vehicle transition, from a source with a carbon neutral footprint. In order to achieve this, Vulcan Group has adopted a strategy designed to capitalise on its competitive strengths. The key elements of Vulcan Group's strategy are as follows:

8.3.1 Ensure local support from stakeholders for the Project

For every decarbonisation or renewable energy project, it is vital that there is a tangible benefit to the local area and communities. Vulcan Group is aiming to build multiple renewable energy and sustainable lithium extraction operations across numerous regions and communities in the Upper Rhine Valley. Vulcan Group intends to supply these communities with renewable heat and power, and will supply European battery makers and auto-makers with sustainable lithium, thus assisting with decarbonisation efforts, in an area already significantly affected by climate change. In addition, by setting up local, project-based companies for each renewable energy plant location, Vulcan Group aims to ensure that the taxes for its project companies are levied at a local level and more generally that there is a direct local benefit of its projects.

In addition, Vulcan Group is continuously expanding its community outreach by engaging with the community members, local and municipal councils, state and federal governments as well as regional media. Vulcan Group appointed regional managers in Ortenau, Südpfalz and Kurpfalz overseeing teams of public affairs, communications, and project management professionals. These teams, with local knowledge and expertise, work with the community to ensure Vulcan Group's mission and the Project is understood and accepted.

8.3.2 Build-out in a modular fashion to accelerate growth and minimise disruption by capitalising on the teams' experience during project execution

The Company intends to build out multiple geothermal-lithium operations in a relatively modular fashion across the Upper Rhine Valley. In doing so, Vulcan Group expects to be able to accelerate the development of multiple locations over a short period of time by carrying out the construction required for its production process developed for the Project. An advantage of this modular build-out is also that lessons learned from one location can also be applied to other locations.

8.3.3 Leverage Vulcan Group's in-house technological capabilities

Vulcan Group has invested significant resources in its research, development and innovation efforts, and has extensive understanding and knowhow in the fields of geothermal project development and operation, and sustainable lithium production from brines. Vulcan Group plans to fully tap into the strength of its sub-surface, plant/process engineering, geothermal and lithium technical teams to leverage this for commercial advantage, including to build and operate highly efficient lithium production operations, and is in discussions to licence its lithium production technology to third party companies. Vulcan Group currently has registered a German utility model for a "system for the production of lithium hydroxide monohydrate, lithium carbonate or both in battery-quality from a geothermal brine". In addition, Vulcan Group presently has filed European patent and/or Patent Cooperation Treaty ("PCT") patent applications as well as selected national phase patent applications which relate to the following inventions:

- system and process for production of battery-quality lithium hydroxide monohydrate, lithium carbonate or both from a geothermal brine;
- system and method for extracting lithium or lithium salts from a brine including resulting brine compositions;
- process and reactor for synthesizing a sorbent for Direct Lithium Extraction including the resulting sorbent and its use;
- process and reactor for classification of a sorbent for Direct Lithium Extraction including the resulting sorbent and its use;
- container with a mixing chamber and the corresponding process for extracting lithium or lithium salts from a brine;
- pressure control in a system and process for extracting lithium or lithium salts from an untreated brine; and
- post processing in a system and process for extracting lithium or lithium salts from an untreated brine.

The Company currently owns registered figurative trademarks in Europe, United Kingdom, New Zealand, Australia, the US, Canada and Japan. These trademarks relate, in particular, to the Company's logo. Vulcan Group has also obtained registration of its VULSORB® brand in Europe, and Australia, see section "8.12 Intellectual Property". Additionally, Vulcan Group is seeking trademark protection for its V-LiON™ logo. If such registration is successful, Vulcan Group intends to licence the trademark to customers, allowing them to show electric vehicle consumers that they are working on improving their carbon footprint by working with suppliers offering greener and more sustainable products.

At present, Vulcan Group does not hold granted patents, but has a portfolio of filed patent applications (in addition to a registered German utility model). Vulcan Group strives to keep in step with the latest industry trends and technological developments in the downstream sectors, enabling it to grasp new market movements in order to continuously optimise its product portfolio and innovate new products to suit its customers' needs.

8.3.4 Develop next generation lithium compounds and advance circular economy approaches to lithium, in line with Vulcan Group's core sustainability values

Vulcan Group believes that the evolution of battery technologies will lead to the adoption of lithium-based applications in the anode and electrolyte within the battery. This evolution will require new forms of lithium to be produced, such as new lithium metal powders or printable lithium products. Vulcan Group intends to continue to invest in its research and development efforts to help create new products, and intends to also invest with and partner alongside its customers to further their own research and development efforts. In particular, Vulcan Group notes that the precursor product it intends to produce from its LEP, lithium chloride concentrate, can be used as a precursor for lithium metal used in next generation "solid state" batteries (batteries with solid composite cathodes as opposed to liquid gel powered lithium-ion batteries), which are expected to be commercialised in the coming years.

8.3.5 Become a long-term renewable energy partner to the German and European economy

Vulcan Group intends to sell renewable heat production to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses, in Phase One and beyond. Vulcan Group believes it is of benefit in the current geopolitical environment to assist the German and European economy with their efforts to replace Russian gas.

8.4 Principal business areas

Vulcan Group intends to produce both battery-grade LHM to supply the growing BEV market, and renewable geothermal heat and power to sell to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses, and as well as power directly to the grid.

8.4.1 Lithium business

Vulcan Group intends to produce a battery-quality LHM chemical product from its combined geothermal energy and lithium resource located in the Upper Rhine Valley of Germany.

LHM is a fine white powder that can be produced from spodumene or other ores using a high temperature chemical process, or converted from lithium carbonate (Li_2CO_3), or produced from lithium chloride (LiCl) concentrate. LHM is fast becoming a crucial raw material for lithium-ion batteries. In order to improve the energy density of the battery and move away from toxic and cost-intensive cobalt, nickel-cobalt-manganese cathodes producers are reducing their cobalt content and increasing nickel usage. Cathode synthesis using lithium carbonate requires high temperatures, which in turn are incompatible with a nickel content of 60% and above (as opposed to 40% cobalt and manganese). The new generation of nickel-cobalt-manganese cathodes used in lithium-ion batteries, therefore require the use of LHM instead of lithium carbonate in order to allow for a higher nickel content. Accordingly, Vulcan Group's focus will be on supplying high performance battery-grade LHM to the fast-growing BEV market. Vulcan Group has the flexibility to produce lithium carbonate in the future from its LHM production with relatively low additional capital expenditure requirements if battery chemistry demands should change in Europe, and also has the ability to potentially produce a lithium chloride precursor product for lithium metal used in "solid state" battery applications, should there be a market for these in the future.

8.4.2 Renewable energy business

Vulcan Group intends to produce geothermal energy from brine at various locations throughout the Upper Rhine Valley. In addition to high lithium grades, the Upper Rhine Valley is a deep geothermal brine reservoir with a high brine flow rate and a capability of generating renewable heat. Geothermal brine is a hot, concentrated saline solution that has circulated through very hot rocks and become enriched with elements such as lithium, boron and potassium. The process of pumping brine to the surface at a geothermal plant generates renewable heat which is used to produce electricity. This also allows for an extraction of lithium partially driven by naturally occurring geothermal heat. Because of its natural conditions, the Upper Rhine Valley is a particularly well-suited location for the operation of geothermal plants.

8.5 Lithium business

8.5.1 Overview

Vulcan Group is developing opportunities to extract lithium chemicals and produce geothermal energy from brine at various locations throughout the Upper Rhine Valley (see section "*8.5.3 Upper Rhine Valley Brine Field*"). Vulcan Group holds a total of 17 licences, being 16 (main) exploration licences and one production licence including having access to one exploration and production licence, respectively, covering areas within the German states of Baden-Württemberg, Rheinland-Palatinate and Hesse and an exploration licence in the French region of the Upper Rhine Valley. (see section "*8.1.1 Business Overview*") and aims to capitalise on its proprietary method for the manufacture of battery-grade LHM with a carbon neutral footprint.

8.5.2 Vulcan Group's Project

The Project will consist of a process to produce both renewable geothermal energy and LHM from the same deep brine source. The Project is in the Upper Rhine Valley geothermal field in Germany, an area endowed with high grade, low impurity, sub-surface geothermal brines. The Upper Rhine Valley brine field has been extensively studied due to its geological and geothermal characteristics, including historical exploration for oil and gas. As a consequence, the Project is situated in a brine field with considerable amounts of existing seismic and drilling data potentially available for exploration and resource evaluation.

The Project represents a development project. The aim is to develop the Project to produce battery-grade LHM from geothermal brines. Vulcan Group intends to utilise a direct lithium extraction process for lithium processing, which is less water and carbon-intensive relative to the reagent-driven and evaporative method used in Salars and to hard-rock lithium operations which generally have a high carbon footprint due to their processing methods and distance to markets (see section "*8.5 Lithium business*"). The temperature of the brines is expected to be an advantage in the development of the processing method providing a source of renewable heat. As a by-product of the production process, renewable geothermal energy is expected to be generated from dual-purpose wells in order to be partly consumed in lithium production and processing and also to potentially be sold as part of the renewable energy business (see section "*8.6 Renewable energy business*").

Phase One of Vulcan Group's Project, if and when fully operational beyond renewable energy production at the Insheim Plant, aims to combine the operations of extracting lithium chloride salt from geothermal brine in the Upper Rhine Valley, of upgrading lithium through electrolysis to a high purity LHM and of producing geothermal energy (renewable electricity and heat). Thermal water will be used as the energy source for the adsorption process of lithium extraction, which means that lithium is expected to be extracted from the brine without polluting the environment with emissions, waste material or toxic substances.

8.5.3 Upper Rhine Valley Brine Field

The Project Licences cover locations within the Upper Rhine Valley of south-western Germany (see section "8.5.4 Overview of Project Licences

"), a valley composed of sedimentary rocks with evaporite deposits formed within an isolated basin depression. The brine occurs in subsurface, confined aquifers within the Upper Rhine Valley at depths of greater than approximately 2,000 meters below the surface. More specifically, the deep brine aquifers occur in porous sandstone and fluid flow is channelled in fault zones that penetrate down into the altered base. Globally, geothermal brines are relatively common, but the fluids are rarely as lithium-rich as they are in the Upper Rhine Valley.

Vulcan Group has conducted a data compilation and brine sampling program in the Upper Rhine Valley that consisted of a geological compilation and subsurface review of the sedimentary rock; an assessment of the hydrogeological conditions underlying the rock; and collecting and analysing brine samples from the Insheim Plant or neighbouring geothermal wells to verify the historical lithium-brine geochemical results.

As per the Bridging Study for Phase One, and as more fully described in section "8.1.3.2 Bridging Study for Phase One (November 2023)", Vulcan Group has a total lithium resource estimate of 27.7 Mt LCE at a grade of 181 mg/l Li (comprising 11.2 Mt LCE of measured and indicated mineral resources and 16.5 Mt LCE of inferred mineral resources, and including proven and probable ore reserves of 0.57 Mt LCE in Phase One licences only).

8.5.4 Overview of Project Licences

The following tables provide an overview of Vulcan Group's main project licences.

8.5.4.1 Production Licences

A production licence (also referred to as an exploitation licence) gives the right to extract freely mineable resources. Vulcan Group holds one production licence and has access to one further production licence for geothermal energy in the Upper Rhine Valley Brine Field of Germany.

Table 17: Production licences

Licence	Ownership	Expiry / renewal date	Location	Type
Insheim ⁽¹⁾	Vulcan Energie	November 2037	Rhineland-Palatinate, Germany	Production licence (geothermal)

⁽¹⁾ The Insheim geothermal production licence and the lithium exploration licence for the Insheim area (LiThermEx) included in the table below relate to the same geographic area but cover different activities (geothermal production vs. lithium / brine exploration).

In addition to the Insheim geothermal production licence, which is held by Vulcan Energie, Vulcan Group has access to the Landau-Süd geothermal production licence (production licence for the extraction of geothermal energy and brine in the Landau-Süd field with expiry date May 2034), which is held by geox, through a joint venture agreement and a brine offtake agreement. Following the completion of the acquisition by Vulcan Group of geox, the Landau-Süd geothermal production licence will be held by Vulcan Group.

8.5.4.2 Exploration Licences

An exploration licence is needed for exploring freely mineable resources. Vulcan Group holds 16 (main) exploration licences and has access to one further exploration licence in the Upper Rhine Valley Brine Field of Germany and France. (In Table 18 below and more generally in this Prospectus, exploration or production licences referring to the same area (nos. 2, 9 and 16, the Ilka Licence (exploration licence for the exploration of lithium in the Ilka field) and Landau-Süd production licences, and the LiThermEx exploration and Insheim production licences) are counted as one (single) licence, in line with Vulcan Group's regular disclosures).

Table 18: Main exploration licences⁽¹⁾

No.	Licence	Ownership	Expiry / renewal date	Location	Type
1	Ortenau II	Vulcan Energie	December 2025	Baden-Württemberg, Germany	Exploration licence (geothermal, brine, lithium)
2	Taro / Lisbeth ⁽²⁾	Vulcan Energie	August 2025 / September 2027	Rhineland-Palatinate, Germany	Exploration licences (geothermal, lithium)
3	Mannheim	Vulcan Energy Resources Europe Pty Ltd	June 2027	Baden-Württemberg, Germany	Exploration licence (geothermal, brine, lithium)
4	Waldnerturm	Vulcan Energie	December 2024	Baden-Württemberg, Germany	Exploration licence (geothermal, brine, lithium)
5	Ludwig	Vulcan Energie	December 2027	Rhineland-Palatinate, Germany	Exploration licence (geothermal, lithium)
6	Therese	Vulcan Energie	December 2027	Rhineland-Palatinate, Germany	Exploration licence (geothermal, lithium)
7	Kerner	Vulcan Energie	December 2027	Rhineland-Palatinate, Germany	Exploration licence (geothermal, lithium)
8	Löwenherz	Vulcan Energie	December 2026	Rhineland-Palatinate, Germany	(Exploration licence (geothermal, lithium)
9	Flaggenturm / Fuchsmantel ⁽²⁾	Vulcan Energie	December 2027 / July 2025	Rhineland-Palatinate, Germany	Exploration licences (geothermal, lithium)
10	Ried	Vulcan Energie	July 2025	Hesse, Germany	Exploration licence (geothermal, brine, lithium)
11	Lampertheim	Vulcan Energie	July 2026	Hesse, Germany	Exploration licence (geothermal, brine, lithium)
12	Lampertheim II	Vulcan Energie	July 2026	Hesse, Germany	Exploration licence (geothermal, brine, lithium)
13	Rift ⁽³⁾	50% Vulcan Energie, 50% GET	June 2027	Rhineland-Palatinate, Germany	Exploration licence (geothermal, lithium)
14	LiThermEx ⁽⁴⁾	Vulcan Energie	March 2025	Rhineland-Palatinate, Germany	Exploration licence (lithium)
15	Luftbrücke	Vulcan Energie	September 2026	Hesse, Germany	Exploration licence (geothermal, brine, lithium)
16	Kachelhoffa / Kachelhoffa minéral ⁽²⁾	Vulcan France	July 2029	Alsace, France	Exploration licences (geothermal, lithium)

⁽¹⁾ Represents Vulcan Group's material exploration licences related to the Upper Rhine Valley. For example Vulcan Group's Cesano licence (relating to a field near Rome, Italy) is not included in the table. The Cesano license is not considered material to Vulcan Group's business interests.

⁽²⁾ The Taro/Lisbeth, the Flaggenturm/Fuchsmantel, and the Kachelhoffa/Kachelhoffa minéral licences, respectively, relate to the same geographic area but cover different activities.

⁽³⁾ Vulcan Group is co-owner of a geothermal / lithium exploration licence "Rift" (until mid-February 2023 held solely by GET), with 50% granted to Vulcan Energie by GET and the local mining authority. Vulcan is exclusively responsible for the northern part of this licence "Rift-Nord".

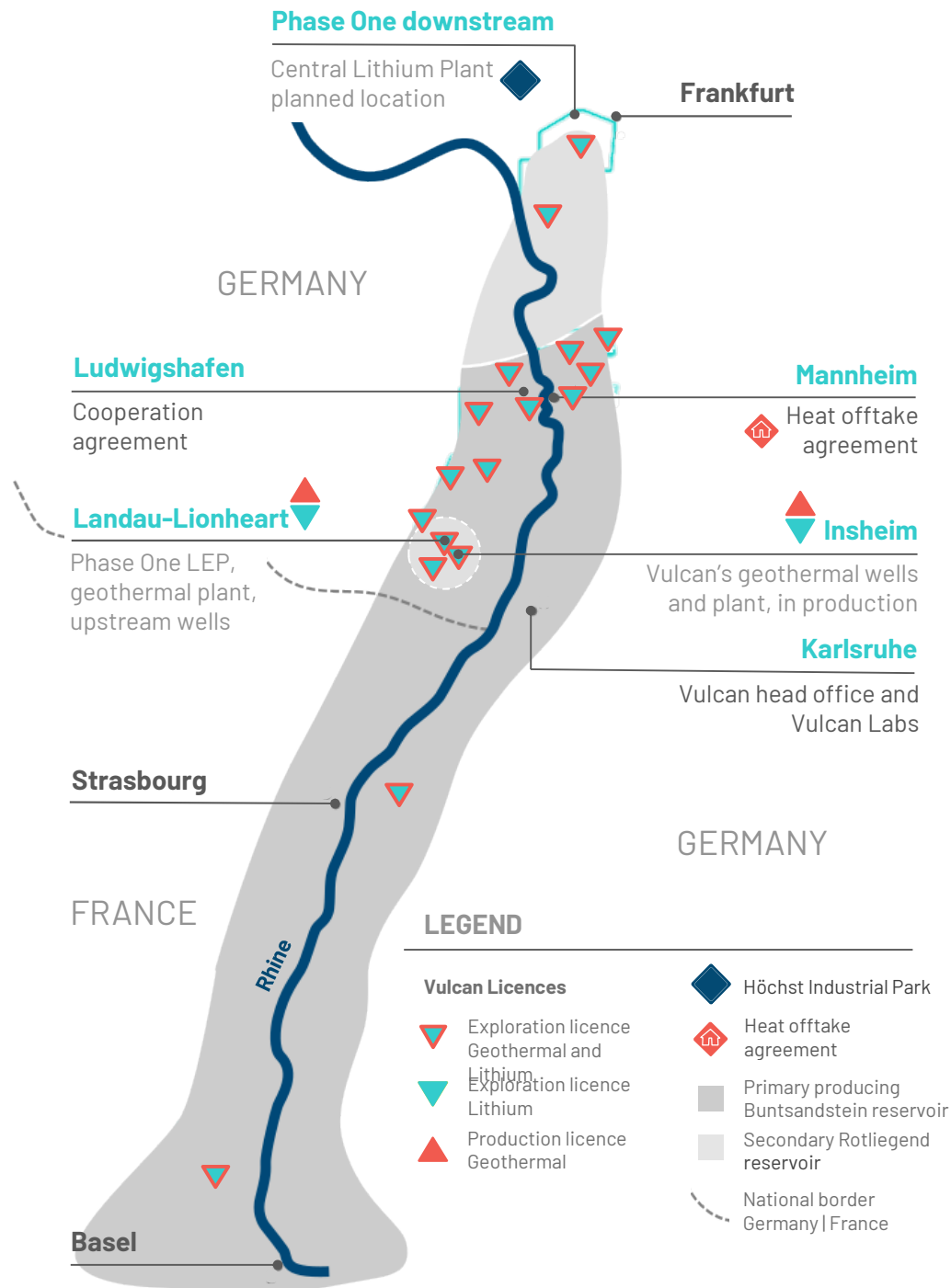
⁽⁴⁾ The LiThermEx licence relates to the same geographic area as the Insheim Licence but covers different activities (lithium exploration vs. geothermal production).

In addition, Vulcan Group has access to the Ilka Licence (exploration licence for the exploration of lithium in the Ilka field with expiry date November 2025), which is held by geox, through a joint venture agreement and a brine offtake agreement. Following the completion of the acquisition by Vulcan Group of geox, the Ilka Licence will be held by Vulcan Group (see section "8.16.1.1 Geox Purchase Agreement").

See section "2.10 References regarding mineral resources, ore reserves and production targets" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus.

Figure 9 shows the geographical area of Phase One of the Project.

Figure 9: Vulcan Group's Phase One area



8.5.5 Lithium Offtake Agreements

Vulcan Group intends to develop solid and long-term customer relationships and strong ties with the latest developments in lithium end-use markets.

Vulcan Group's goal is to become a critical link in its customers' supply chains and an integral component in lithium end markets. Vulcan Group, by using its in house technological capabilities (see section "8.3.3 Leverage Vulcan Group's in-house technological capabilities"), plans to continuously expand its customer base and deepen customer relationships, in particular in Europe, and by further enhancing its sales efforts and customer-oriented research and development

capabilities. Vulcan Group intends to strengthen its ties with top-tier end customers, in particular cathode, battery and electric vehicle manufacturers.

As of the date of this Prospectus, Vulcan Group has entered into binding lithium offtake agreements with:

- Umicore, to sell between 23,000 and 35,000 metric tonnes of battery-grade LHM over an initial five-year term with commercial delivery scheduled to start in 2026/2027, yet to be adjusted to align with the targeted start of commercial production (see section "8.16.3.1 Umicore Lithium Offtake Agreement");
- Renault, to sell between 11,000 to 29,000 metric tonnes of battery-grade LHM over an initial six-year term with commercial delivery scheduled to start in 2028 (see section "8.16.3.2 Renault Lithium Offtake Agreement");
- Stellantis, to sell between 172,500 and 267,000 metric tonnes of battery-grade LHM over an initial ten-year term with commercial delivery scheduled to start in 2027 (see section "8.16.3.3 Stellantis Lithium Offtake Agreement");
- LG Energy, to sell between 25,000 and 45,500 metric tonnes of battery-grade LHM over an initial five-year term with commercial delivery scheduled to start in 2027/28 (see section "8.16.3.4 LG Energy"); and
- Volkswagen, to sell 38,000 metric tonnes of battery-grade LHM over an initial five-year term with commercial delivery originally scheduled to start in 2026, but yet to be amended to apply to a future phase of production beyond Phase One (with the timing yet to be defined) (see section "8.16.3.5 Volkswagen Lithium Offtake Agreement").

For additional detail regarding the repeated delay of the expected commercial delivery under each of Vulcan Group's lithium offtake agreements, see section "6.2.3 Development activities and expansion of installed capacity". Each of the agreements is subject to termination rights should the respective scheduled start date for commercial delivery (or certain other conditions precedent) not be met. The agreements may be extended by agreement between the parties after their respective initial terms. Together, the volumes of LHM to be delivered under these agreements correspond to the entire expected quantity of the first five years of production from Phase One, and the majority of the production in the second five years of production.

Table 19 provides an overview of the binding lithium offtake agreements entered into by Vulcan Group as of the date of this Prospectus:

Table 19: Lithium offtakes

Partner and category	Contract tenor and commencement	Contracted LHM offtake for Phase One (t)	Total contracted offtake for the Project ⁽²⁾ (t)
Umicore¹ <i>Tier one cathode maker</i>	5 years, starts in 2026/2027	23,000	35,000
Renault <i>OEM</i>	6 years, starts in 2028	11,000	29,000
Stellantis <i>OEM</i>	10 years, starts in 2027	172,500	267,000
LG Energy <i>Tier one battery maker</i>	5 years, starts in 2028	25,000	45,500
Volkswagen³ <i>OEM</i>	5 years	-	38,000

(1) Timing is yet to be adjusted to align with the targeted start of commercial production.

(2) Total expected contracted offtake to be delivered under these agreements correspond to the entire expected quantity of the first five years of production from Phase One, and the majority of the production in the second five years of production.

(3) Volkswagen offtake for a future phase of production beyond Phase One, with the timing yet to be defined.

Vulcan Group is also in discussions with other potential offtake partners that have demonstrated interest in securing LHM production relating to future phases of the Project beyond Phase One. Overall, it is the Company's goal to have most of its production of battery-grade LHM committed under lithium offtake agreements with reputable counterparties.

8.6 Renewable energy business

Vulcan Group is developing opportunities to produce geothermal energy from brine at various locations throughout the Upper Rhine Valley Brine Field.

8.6.1 Overview and key operational metrics

Vulcan Group commenced operations of its renewable energy business following the acquisition of Natürlich Insheim in December 2021, which operates the Insheim Plant (see section "8.1.2 Recent Corporate Acquisitions"). The installed production capacity of the Insheim Plant amounts to approximately 4.8MW of renewable power or 28.5MW thermal energy (currently producing approximately 2.9MW of electricity on average). In addition, the Project involves the construction and commissioning of one additional geothermal plant in Phase One (referred to as "**D12**"), which (together with the existing Insheim Plant) is planned to have a combined annual production target of more than 275 GWh of energy and more than 560 GWh of heat. The required land acquisition to erect such construction is dependent on a final positive decision by the City of Landau, which is expected to reach a decision in the second quarter of 2025.

Vulcan Group currently intends to utilise a portion of the energy produced by the geothermal plants for its lithium extraction operations, and:

- sell electricity production to the grid at the feed-in tariff or higher market prices; and
- sell excess heat production to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses.

The EEG, as described in more detail in section "10.2.3 Renewable Energies Act (*Gesetz für den Ausbau erneuerbarer Energien*)" of this Prospectus, provides a subsidised remuneration regime for electricity generated and sold to the grid using geothermal resources. Under the revised EEG, the existing feed-in tariff (252 EUR/MWh) will reduce by 0.5% each year for new geothermal projects commissioned after 2024, however once the plant is operational, the applicable tariff will be fixed and guaranteed for 20 years from the commissioning date, which equates to 252 EUR/MWh in the case of the Insheim Plant (2012) and approximately 247 EUR/MWh based on the expected commissioning date of D12 (2027). In periods where spot prices are above the feed-in tariff level, as has recently been the case, Vulcan Group can sell the electricity produced at the higher spot price, in which case the feed-in tariff acts as a "floor price" (see section "6.2.2 The market prices for, and volumes of, electricity and heat produced by Vulcan Group's renewable energy business"). After this 20-year remuneration period (or the remaining part of this remuneration period if a geothermal plant was already commissioned), its future revenues for the applicable geothermal plant will depend upon the respective market price for renewable energy. While the applicable "feed-in tariff" may not offer a risk-adequate return to investors in a stand-alone geothermal power plant, Vulcan Group's business model, with its lithium and renewable energy businesses, foresees dual revenue sources of which the lithium business is expected to generate the larger revenue share.

8.6.2 Direct Marketing and Grid Connection

Natürlich Insheim has entered into a framework agreement with Pfalzwerke, the former owner of Natürlich Insheim, for a direct marketing agreement ("**DMA**") for the electricity produced in the Insheim Plant. The remuneration under the DMA is based on the respective hourly spot market prices at the EPEX Spot SE in Leipzig ("**EPEX**"). Pfalzwerke receives a direct marketing fee, which is deducted from the revenues obtained from marketing at EPEX. This direct marketing fee amounts to 0.10 EUR/MWh.

Natürlich Insheim has entered into a grid connection agreement with Pfalzwerke Netz AG as the responsible local grid operator. The grid connection agreement has an indefinite term, but can be terminated by Pfalzwerke Netz AG and Natürlich Insheim at any time with one month's notice. Pfalzwerke Netz AG's grid connection was established at a medium voltage level with a voltage of 20 kV.

8.6.3 Heat Offtake Agreements

Vulcan Group is currently negotiating heat offtake agreements in a number of additional areas. Heat sold to third-party customers will be the subject of contractual negotiation with such customers, which Vulcan Group expects will primarily comprise local municipalities and businesses in the Upper Rhine Valley.

As at the date of this Prospectus, Vulcan Group is in discussions with the City of Landau and ESW to supply geothermal heat generated in Phase One to ESW for sale to its customers for district heating purposes. Remaining heat not used by ESW will be returned to Vulcan Group to generate electricity that will be sold to the network.

Additionally, Vulcan Group has entered into other agreements as part of a future phase of production beyond Phase One, with the timing yet to be defined. These include:

- A binding heat offtake agreement dated April 2022 with MVV Energie to supply between 240 GWh and 350 GWh of renewable heat per year to households in Mannheim, Germany under an initial term of 20 years; and
- Phased project agreements dated between 2021 and 2024 with Stellantis aimed at developing, building, and operating geothermal renewable energy assets in multiple stages to help decarbonise the energy supply for Stellantis' operations in Rüsselsheim, Germany and Mulhouse, France by providing renewable heat.

8.7 Property

The Company has its registered office at Unit 1, 11/1 Spring Street, Perth WA 6000, Australia, and its key operational subsidiaries are based in Germany.

Table 20 provides an overview of the real property owned or leased by Vulcan Group as of 30 September 2024:

Table 20: Real property owned or leased by Vulcan Group

Location	Country	Leased / owned	Use	Used by
Unit 1, 11/1 Spring Street, Perth WA 6000	Australia	Leased	Office space	Company
An der Raumfabrik, Amalienbadstrasse 41, Bau 34+54 Karlsruhe	Germany	Leased	Office space	Vulcan Energie
Industriestraße 2, Landau	Germany	Leased	Info Center	Vulcan Energie
Julius-Hatry-Str. 1, Mannheim	Germany	Leased	Info Center	Vulcan Energie
Eutzinger Straße 40a, Landau	Germany	Leased	LEOP	Vulcan Energie
Elwerathstraße 1, Nienhagen	Germany	Leased	Drill construction site	Vercana
Alois-Senefelder-Allee 1, Augsburg	Germany	Leased	Office space	VEE
Oskar-von-Miller-Straße 2, Landau	Germany	Leased	Office space	Natürlich Insheim
Hinter der Sandgrube 1, Insheim	Germany	Owned	Insheim Plant	Natürlich Insheim
Albert-Einstein-Str. 14, 76829 Landau	Germany	Leased	Warehouse	Vulcan Energie
Industriestr. 34, 67136 Fußgönheim	Germany	Leased	Office space	Vulcan Energie
84, route de Strasbourg, 67500 Haguenau	France	Leased	Office space	Vulcan Energie France

KIT Herrmann-von-Helmholtz-Platz 6, 76344 Eggenstein-Leopoldshafen	Germany Leased	Laboratory	Vulcan Energie
Flugplatzstraße 9, 67681 Sembach	Germany Leased	Warehouse	Vercana
Site B685 at Industrial Park Frankfurt Höchst	Germany Leased	CLEOP	Vulcan Energie
Waldstraße 6, Lingen	Germany Leased	Office space	Comeback
Site G660 at Industrial Park Frankfurt Höchst	Germany Reserved	CLP	Vulcan Projektgesellschaft 2 GmbH
Schleiberg	Germany Owned	Well site	Natürlich Südpfalz
Trappelberg	Germany Owned	Well site	Natürlich Südpfalz
40 Morgen	Germany Owned	Well site	Natürlich Südpfalz

8.8 Environmental, Social and Governance (ESG)

Vulcan Group seeks to comply with all relevant environmental laws and regulations, and it has suffered no prosecutions or fines for environmental practices since the inception of the Company.

Sustainability, one of Vulcan Group's key principles which shape the Company's culture and inform the Company's strategy, and ESG more generally are deeply embedded in Vulcan Group's business and strategy (see section "8.3.4 Develop next generation lithium compounds and advance circular economy approaches to lithium, in line with Vulcan Group's core sustainability values"). Vulcan Group's strategy and major plans of action have been guided by climate protection-related considerations, including the decision in 2019 to acquire and develop the Project.

Figure 10: Vulcan Group's sustainability strategy



8.8.1 Audit, Risk and ESG Committee

Vulcan Group believes that it maintains adequate procedures to monitor and assess its environmental impact and obligations and aims to comply with the latest most relevant local and international environmental and social standards, including changing environmental and social standards from time to time. To assist with this, Vulcan Group has formed an independent audit, risk and ESG committee ("**Audit, Risk and ESG Committee**") and appointed an internal ESG lead to continue to strengthen Vulcan Group's ESG framework and strategy. The Audit, Risk and ESG Committee meets regularly to discuss risks and opportunities associated with climate-, environmental-, social- and governance-related matters and subsequently presents these findings at monthly Board meetings (see section "*12.2.4.2 Audit, Risk and ESG Committee*"), while the ESG lead is responsible for the development, implementation and reporting of Vulcan Group's ESG framework (see section "*8.8.2 Sustainability and ESG Framework*").

8.8.2 Sustainability and ESG Framework

In June 2022, Vulcan Group released its sustainability and ESG framework ("**Sustainability and ESG Framework**"), which Vulcan Group regards as essential to delivering on strategic priorities and defining the Company's purpose, strategy, mission and values. With respect to the Sustainability and ESG Framework, Vulcan Group completed its first materiality assessment, a formal process which involved reviewing global industry trends, benchmarking peers and leaders, and interviewing key external and internal stakeholders to identify material topics with the greatest impact on company, communities and the environment. During this assessment seventeen material topics have been identified and are utilised to focus management, set targets and align strategy.

The Sustainability and ESG Framework defines short and long-term performance objectives linked to sustainability-related considerations for the management team including maintaining an annual carbon neutral certification, an increasing staff satisfaction rate and remaining in the lowest quartile for absolute GHG emissions (Scope 1, 2 & 3 of the Sustainability and ESG Framework). This ensures the prioritisation of sustainability throughout Vulcan Group and that sustainability goals are clearly defined, accountable, and measurable. Vulcan Group has numerous processes and frameworks in place to monitor implementation and performance, including structured and timely feedback from the management team to the Audit, Risk and ESG Committee and the Board of Directors and reliance on third party independent consultancies to provide guidance as to the environmental and social impacts of Vulcan Group's current and planned operations, recommendations to eliminate these impacts provided where they arise and to assist Vulcan Group with current EU climate-related regulation compliance.

Vulcan Group's FY23 Sustainability Report further builds upon the Sustainability and ESG Framework by reporting performance against its 2023 ESG targets and setting new targets for the 2024 reporting period. In December 2023, ERM has completed its ESIA for Phase One of Vulcan Group's Project which was aligned with Equator Principles 4 (EP4) and IFC Performance Standards, including a summary of its ESIA findings in Vulcan Group's FY23 Sustainability Report. The ESIA was updated on 16 September 2024.

On 27 October 2024, Vulcan Group's Sustainability and ESG Framework has been assessed by leading independent ratings agency, S&P Global Ratings, and been awarded a "Dark Green" rating overall.

8.8.3 Vulcan Group's CO₂ Footprint

8.8.3.1 Background

Whilst Vulcan Group plans to use zero Scope 1 fossil fuels to power its process, the Company recognises that across any industrial plant development it is currently impossible to truly have zero GHG emissions, especially during construction.

Vulcan Group defines its Project as having carbon neutral emissions over its project life cycle, resulting from the activities undertaken to extract and process lithium from its combined lithium and geothermal brine resource located in the Upper Rhine Valley, Germany. Unlike other lithium operations, Vulcan Group aims to not burn fossil fuels in the production and processing exercise. Instead, it will use its own geothermal renewable heat source to drive the process, whilst also selling its own geothermal heat and power to the grid, displacing fossil fuel generated energy. The carbon

emissions avoided as a result of the displaced fossil fuel generated energy allows Vulcan Group to define the project as carbon neutral.

The Company includes Vulcan Group's carbon neutral position as among its key performance indicators and uses it, along with other key performance indicators, to manage Vulcan Group's business (see section "2.8.3 Other key performance indicators").

8.8.3.2 Vulcan Group's CO₂ Footprint, Sustainability-Related Certifications and ESG Rating

In 2019, Vulcan Group commissioned LCA on the environmental footprint of LHM from Minviro, an independent consultancy. The latest update of the LCA, undertaken in 2024, found that Vulcan Group's integrated renewable energy and the Project has an overall net climate change impact contribution of –2.0 kg CO₂ eq. per kg LiOH.H₂O. This included the estimated emissions from lithium production and transport including import of energy from the grid, and estimated emissions avoided due to export of geothermal electricity and heat into the grid and district heating respectively (i.e. the project is planned to be net carbon negative, due to its positive energy balance). This net negative figure is based on the ISO-compliant methodology used by the LCA, but not consistent with IPCC definition of a carbon negative project, the latter of which requires the removal of CO₂ from the atmosphere in a process of carbon sequestration. Therefore, Vulcan Group refers to its Project as "carbon neutral" due to carbon avoidance. The Project is expected to have the lowest planned carbon footprint on a per tonne of LHM basis in the lithium industry compared to any previously published LCA results (source: Bridging Study; Minviro). The LCA was conducted according to ISO-14040:2006 and ISO-14044:2006 standards and included a third-party expert review. LCAs will be updated at regular intervals going forward.

In March 2021, Vulcan Group announced that it intends to use the full traceability and dynamic CO₂ measurement solution developed by Circular ("**Circular's CO₂ Solution**") for the Project across the European lithium-ion battery and BEV supply chain. Circular's CO₂ Solution offers a solution that enables customers to track raw materials throughout supply chains to demonstrate responsible sourcing and sustainability. The system implementation enables reputational protection, proof of compliance with regulations and dynamic carbon tracking. Circular's CO₂ Solution provides a month-to-month visibility of CO₂ intensity across the supply chain and its participants (see section "8.13 Information Technology"). Vulcan Group intends to implement Circular's CO₂ Solution or a similar alternative, to its future lithium supply contracts with European OEMs to help them meet their sustainability objectives for material traceability and CO₂ transparency. Circular and Vulcan Group intend to collaborate for preparing Vulcan Group and its supply chain for further traceability of Vulcan Group's product for its targeted production start.

Vulcan Group has been certified as a carbon neutral organisation for 2022 by Climate Active and South Pole, with the 2023 certifications still in progress. The Climate Active certification covers Vulcan Group's Australian business (i.e. the Company) and has been in place since 2020. This is a partnership between the Australian Government and Australian businesses to encourage voluntary climate action. The South Pole certification covers Vulcan Group's European operations and covers the Company's subsidiaries.

In connection with the certifications by Climate Active and South Pole, Vulcan Group's emissions footprint has been calculated in accordance with the GHG Protocol, and covers scope 1 emissions (mobile combustion), scope 2 emissions (market-based electricity and heating), and scope 3 emissions (category 1 (purchased goods and services), category 2 (capital goods), category 3 (fuel and energy related activities), category 5 (waste generated in operations), category 6 (business travel), and Category c (employee commuting). As part of Vulcan Group's carbon neutral certifications, Vulcan Group has acquired offsets that support biodiversity and conservation projects including the Gola Rainforest Protection in Sierra Leone and Babatana Rainforest Conservation Project in the Solomon Islands.

Moreover, Vulcan Group obtained its first publicly available ESG risk report from Sustainalytics, an independent ESG and corporate governance research, ratings and analytics firm, in January 2023 with the most recent overall ESG risk score of 18.7 (as of 2 December 2024), which puts Vulcan Group in at the lowest ESG risk ranking and in the top 2nd percentile of all chemicals companies assessed, and 1st among peers of equal market capital size, surveyed by Sustainalytics.

8.8.4 ESG Disclosure

Vulcan Group is a member of the TNFD Forum, a global multi-disciplinary consultative group of institutions with over 800 forum members, helping to contribute to the work and mission of the Taskforce on Nature-Related Financial Disclosures ("**TNFD**"). The TNFD is a global, market-led initiative with the mission to develop and deliver a risk management and disclosure framework for organisations to report and act, with the aim of supporting a shift in global financial flows away from nature-negative outcomes towards nature-positive outcomes.

Vulcan Group's reports on sustainability with reference to the Global Reporting Initiative (GRI) standards, the index of which is accessible in the appendix of Vulcan Group's FY23 Sustainability Report. Following from the annual report for FY21 where Vulcan Group voluntarily disclosed climate-related risks and opportunities utilising the Taskforce on Climate-Related Financial Disclosures ("**TCFD**") framework, the subsequent annual Sustainability Reports expanded TCFD framework reporting to include the Corporate Governance Framework, risk management and identified the magnitude of financial impact of climate-related risks and opportunities for Vulcan Group. Further scenario modelling as part of the TCFD framework was included in Vulcan Group's 2022 TCFD Report.

8.8.5 Further ESG Alliances and Initiatives

Vulcan Group's lithium team has joined the German National Committee of ISO/TC333 that coordinates the standardisation process in the field of lithium chemicals at national level and is responsible for organising German participation in standards work at European and international level. Together with experts from the other 15 countries that currently embody the global ISO/TC 333 Committee, the team seeks to improve the quality and value proposition of sustainable lithium products made in Europe.

Since February 2022, Vulcan Group has been a participant on the United Nations Global Compact ("**UNGC**"). The UNGC is based on ten principles around four key themes of Human Rights, Labour, Environment and Anti-Corruption. By becoming a participant, Vulcan Group committed to annually report based on these ten principles.

In addition, Vulcan Group aligned its approach to sustainability with the sustainable development goals adopted by the United Nations in 2015 ("**SDGs**"), with a particular focus on the following ten SDGs: Gender equality, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, sustainable cities and communities, responsible consumption and production, life on land, good health and well-being, clean water and sanitation, and climate action.

8.9 Research, Development and Innovation

As of 30 June 2024, Vulcan Group had a team of approximately 46 full-time equivalent employees driving research, development and innovation to advance project development and technology readiness. Vulcan Group has developed and is testing and optimising extraction technologies of lithium from geothermal brine. Vulcan Group's core team comprises a select and well-balanced group of experts with advanced degrees and extensive experience in geochemistry, chemistry and chemical engineering and other relevant scientific fields for the research and development of lithium products on the one hand, and optimizing the operational effectivity of geothermal plants on the other hand. Vulcan Group is working to adapt the technologies to the ambient parameters such as solubility of minerals and gases in the brine of the Upper Rhine Valley. The goal is to reduce the impact on the brine by the extraction technologies as well as the protection of the subsurface reservoir upon reinjection of the brine. Vulcan Group's research development, and innovation efforts have generated intellectual property and industry know-how (see section "*8.12 Intellectual Property*").

Vulcan Group is committed to building and fostering research development and innovation collaborations with universities and research institutions. Vulcan Group intends on initiating joint research efforts with, e.g., the KIT. Intensive cooperation with international researchers and experts from the areas of hydro- and petrogeology, reservoir geology, geochemistry, geophysics, geothermics as well as process technology and industrial chemistry is being forged with the aim to contribute with technological and process solutions along the whole value chain and potentially new geographic locations. In addition, Vulcan Group is currently conducting a research project aiming to explore and provide information on lithium and other element contents in the geothermal brines and mine waters of Eastern Europe. For this, Vulcan Group has partnered with universities and research centres throughout Europe. Also, each of Vercana and Natürlich Insheim are involved in numerous

research projects across the entire Vulcan Group value chain with further research applications in planning stages.

Selected key research and development projects of Vulcan Group include the following:

VULSORB™	Development of proprietary sorption material and its use for adsorption-type direct lithium extraction (A-DLE).
GeoSmart	Enhancing Insheim Plant to dual operation: electricity and heat production. Developing a control system to optimally operate power plant according to weather conditions.
EffGeo	Increasing efficiency of geothermal power plants.
GreGeo	Development of a new well completion strategy that aims to establish a corrosion-resistant alternative to steel.
CROWDTHERMAL	Empowering the European public to directly participate in the development of geothermal projects with the help of alternative financing schemes (crowdfunding) and social engagement tools.
MEET	Multidisciplinary and multi-context demonstration of EGS exploration and production techniques and potentials.
DGE-Rollout	Roll-out of Deep Geothermal Energy in Northwest Europe.
EIKE	Optimisation of Inhibitor dosage to minimize scaling and corrosion within the plant system, as well as environmental impact upon reinjection of Lithium-depleted brine.
GeoThermScaling	Development and evaluation of advanced iron boride-based anti-corrosion coating with high resistance to corrosion and scaling for deep geothermal applications.
GEORISK	Aims to develop financial schemes and mitigate the impact of the resource risk.

8.10 Marketing

In order to accomplish its mission to become the world's first lithium chemicals and renewable energy producer with a carbon neutral footprint, Vulcan Group has, since 2021, engaged with local stakeholders including the community with the intention to obtain public acceptance and backing for Vulcan Group's planned LHM and renewable energy projects, as well as timely grant of requisite permits. Vulcan Group has built a team of local communication experts to tailor messaging to best inform local stakeholders about planned activities including the prospect of renewable community heating and attract interest in the Project at a federal and international level.

In addition, Vulcan Group has set up local project websites and social media channels for each planned area within the Upper Rhine Valley and engaged in event and media activities including within sporting clubs. Vulcan Group has also cooperated with the State Governments of Baden-Württemberg and Rhineland-Palatinate as well as the University of Stuttgart to implement a participation concept to involve stakeholders.

8.11 Employees

As of the date of this Prospectus, Vulcan Group has employed circa 350 employees (full-time equivalent). There has been no material change in the number of employees in the period from 30 June 2024 until the date of this Prospectus.

The following table provides an overview of the number of Vulcan Group's employees (headcount) by Vulcan Group company as of 30 June 2024, 31 December 2023, 31 December 2022, 30 June 2022 and 30 June 2021, respectively.

Table 21: Employee headcount

	30 Jun 2024	31 Dec 2023	31 Dec 2022	30 Jun 2022	30 Jun 2021
Vulcan Energy Resources Limited (the Company)	9	7	8	6	4
Vulcan Energy Resources Europe Pty Ltd	-	-	-	-	-
Vulcan Energy Italy Pty Ltd (founded in July 2021)	-	-	-	-	n/a
Vulcan Energie Ressourcen GmbH	186	164	85	51	8
Global Geothermal Holding UG (acquired in July 2021 and merged with and into Vulcan Energie Ressourcen GmbH in January 2022)	n/a	n/a	-	-	n/a
Vulcan Energy Subsurface Solutions GmbH (formerly GeoThermal Engineering GmbH, acquired in July 2021 and which was subsequently merged with and into Vulcan Energie)	25	28	22	18	n/a
Vulcan Energy Engineering GmbH (formerly Geco Global Engineering & Consulting-Company GmbH, acquired in July 2021)	17	35	39	42	n/a
VER GEO LIO GmbH (founded in July 2021)	-	-	-	-	n/a
Vulcan Geothermal GmbH (founded in July 2021)	-	-	-	-	n/a
Vercana GmbH (founded in December 2021)	81	69	25	8	n/a
Natürlich Insheim GmbH (acquired in December 2021)	7	9	12	13	n/a
Natürlich Südpfalz Geschäftsführungs GmbH	-	-	-	n/a	n/a
Natürlich Südpfalz GmbH & Co. KG	-	-	n/a	n/a	n/a
Vulcan Energie France SAS (founded in September 2022)	1	1	-	n/a	n/a
Comeback Personaldienstleistungen GmbH (acquired effective February 2023)	57	62	n/a	n/a	n/a
Vulcan Lily Lithium Geschäftsführungs GmbH (founded in December 2022, renamed in 2023)	-	-	-	n/a	n/a
Landau-Süd Joint Venture Verwaltungs GmbH	-	-	n/a	n/a	n/a
Landau-Süd Joint Venture GmbH & Co. KG	-	-	n/a	n/a	n/a
Vulcan Projektgesellschaft 2 GmbH	-	-	n/a	n/a	n/a
Vulcan Projektgesellschaft 3 GmbH	-	-	n/a	n/a	n/a
Vulcan Energy SA Pty Limited	-	-	n/a	n/a	n/a
Vulcan Lily Lithium (Höchst) GmbH & Co.KG ⁽¹⁾	-	-	n/a	n/a	n/a
Total headcount	383	375	191	138	12

⁽¹⁾ This entity was dissolved on 2 December 2024.

8.12 Intellectual Property

As of the date of this Prospectus, Vulcan Group has obtained a German utility model registration and has filed multiple European patent and PCT (international) patent applications, respectively, as well as applied for related national/regional patents, dependent on the relevant jurisdiction which is information confidential to the business, all of these patents are material to Vulcan Group's business.

The registered German utility model has a filing date of 8 April 2020 and is for a "completed" system for the production of lithium hydroxide monohydrate, lithium carbonate or both in battery-quality from a geothermal brine. The European patent application was filed on 27 May 2022 for a "system, method and compositions for extracting lithium from low-energy brines" and is currently awaiting examination. The international PCT application, which also has a priority date of 8 April 2020, is titled "system and process for direct lithium extraction and production of low carbon intensity lithium

chemicals from geothermal brines". This application has entered its national / regional phases in Europe, Australia, Canada, Chile, China, Japan, Korea and the US.

The Company currently owns registered figurative trademarks in Europe, United Kingdom, New Zealand, Australia, the US, Canada and Japan. These trademarks relate, in particular, to the Company's logo. Vulcan Group has also obtained registration of its VULSORB® brand in Europe and Australia, is seeking trademark protection of its V-LiON logo and otherwise relies on trade secret protection through non-disclosure agreements and other methods to protect its proprietary rights.

In addition, Vulcan Group presently has filed European patent and/or Patent Cooperation Treaty ("PCT") patent applications as well as selected national phase patent applications which relate to the following inventions:

- system and process for production of battery-quality lithium hydroxide monohydrate, lithium carbonate or both from a geothermal brine;
- system and method for extracting lithium or lithium salts from a brine including resulting brine compositions;
- process and reactor for synthesizing a sorbent for Direct Lithium Extraction including the resulting sorbent and its use;
- process and reactor for classification of a sorbent for Direct Lithium Extraction including the resulting sorbent and its use;
- container with a mixing chamber and the corresponding process for extracting lithium or lithium salts from a brine;
- pressure control in a system and process for extracting lithium or lithium salts from an untreated brine; and
- post processing in a system and process for extracting lithium or lithium salts from an untreated brine.

8.13 Information Technology

Vulcan Group uses a number of standard software for its business operations, in particular monitoring and accounting software provided by DATEV, LucaNet and ODOO (Enterprise Resource Planning). The data management system ALFRESCO in conjunction with MS-SharePoint stores the documents. In addition, Vulcan Group uses seismic, geographic and geochemical interpretation and simulation software such as Petrel™, QGIS and PHREEQC. Vulcan Group also intends to use Circulor's CO₂ supply chain traceability solution (see section "8.8.3.2 Vulcan Group's CO₂ Footprint, Sustainability-Related Certifications and ESG Rating" for details).

8.14 Insurance

The Company has taken out insurance policies that are customary in its industry, such as fire, natural disasters, operational interruptions, enterprise accident and third-party liability insurance. The Company believes that its insurance policies contain market-standard exclusions and deductibles. The Company regularly reviews the adequacy of its insurance coverage and considers the scope of its insurance coverage to be customary in its industry. The Company has also taken out a directors and officers insurance policy that covers members of the Company's management.

8.15 Litigation

Vulcan Group may be party to legal proceedings from time to time which may arise in the ordinary course of business. During the twelve months prior to the date of this Prospectus, there were no governmental, legal or arbitration proceedings (including any such proceedings which are pending of which the Company is aware) which may have, or which have in the recent past had, a significant effect on the Company's or Vulcan Group's financial position or profitability.

8.16 Material Agreements

8.16.1 Share Purchase Agreements

8.16.1.1 Geox Purchase Agreement

On 27 September 2024, the Company's wholly owned subsidiary Vulcan Energie and VER GEO LIO GmbH entered into an agreement to acquire 100% of the shares in geox from the IKAV Group for a purchase price estimated at EUR 15 million to be paid as a deferred payment following the earlier of June 2025 (which date can be extended by one, two or three years, subject to additional investments by Vulcan Group) or the completion of the Envisaged Debt Financing or a substantial equity raising (which may be satisfied by the Equity Raising). geox is the owner and operator of a production licence for the extraction of geothermal energy and brine in the Landau-Süd Field (being the Landau-Süd licence) and an exploration licence for lithium chloride in the Ilka Field (being the Ilka Licence) which Vulcan Group expects will contribute to approximately 20% of planned brine production in Phase One (see section "8.5.4 Overview of Project Licences"). The share purchase agreement contains limited warranties from the sellers. As of the date of this Prospectus, the acquisition of geox is still subject to completion, pending certain outstanding transfer procedures. Along with the share purchase agreement, the parties to the agreement have entered into a land lease agreement under which IKAV will retain ownership of the land pertaining to the geothermal plant site and buy from - and lease back to - a Vulcan Group company, any future land used for well-site production in the licence area, against annual leasehold payments and royalties on heat and electricity sales, as well as a lithium extraction compensation consideration. The structure will allow for the streamlining and consolidation of the remaining upstream production assets of the Project into 100% Vulcan Group ownership and is intended to replace an existing joint venture agreement and brine offtake agreement with geox.

8.16.2 Financing and Placement Agreements

8.16.2.1 Secured credit facility (BNP Paribas Facility)

On 25 September 2024, Vulcan Group (with Natürlich Insheim GmbH acting as borrower and VER GEO LIO GmbH acting as guarantor) has entered into a EUR 10,000,000 credit facility with BNP Paribas to provide short term flexibility prior to completion of the equity and debt financing of Phase One of the Project (BNP Paribas Facility).

The BNP Paribas Facility has a five-year term and is secured against the shares of Natürlich Insheim GmbH, which holds the Insheim Plant, and a security assignment regarding payment claims under a framework agreement for the marketing of electricity from renewable energy sources. The BNP Paribas Facility is subject to a floating interest rate, which is calculated as the Euro Interbank Offered Rate (EURIBOR) plus a margin. The BNP Paribas Facility contains several covenants, including a leverage covenant a covenant that requires Vulcan Group to maintain a certain net debt to EBITDA (defined as earnings before interest, taxes, depreciation and amortisation) ratio and a certain debt service coverage ratio. In the event of a covenant breach, BNP Paribas may terminate the BNP Paribas Facility and declare the outstanding loan together with interest accrued thereon due and payable within a short period of time. Once drawn down, the funds are intended to be allocated towards general corporate purposes including working capital and preparatory works for the Project and are intended to be repaid upon successful closure of equity and debt financing for the Project (see "8.1.3.5 Funding on Company Level and on Project Level"). Repayment of the BNP Paribas Facility is in instalments, starting on 31 December 2025 through 30 June 2029.

8.16.2.2 Financing Arrangements for Envisaged Debt Financing and Envisaged Equity Financing

Vulcan Group intends to fund the planned investments to implement Phase One of the Project through a combination of debt financing at the project level as well as equity financing at the project and Company level. Further detail regarding the Company's proposed financing arrangements is set out in "8.1.3.5 Funding on Company Level and on Project Level".

8.16.3 Offtake Agreements

8.16.3.1 Umicore Lithium Offtake Agreement

The original lithium offtake agreement between Vulcan Group and Umicore was entered into in October 2021. The parties subsequently agreed to amendments of the original agreement, most

recently in May 2024, in order to, among other things, postpone the commercial delivery start date and adjust the delivery volumes. Under the amended agreement, Vulcan Group is expected to sell to Umicore between 23,000 and 35,000 metric tonnes of battery-grade LHM over an initial five-year term (which may be extended by an additional five years), with commercial delivery scheduled to commence in 2026/2027. Conditions precedent to the start of commercial delivery include the securing of project finance by the end of 2024 and the successful qualification of sample volumes from the commercial plant to specification. Should one or more of these conditions precedents not be met or not be met in the designated timeframe, Umicore has the right to terminate the agreement. The terms of the agreement are yet to be adjusted to align with the targeted start of commercial production, currently targeted to commence in 2027.

8.16.3.2 Renault Lithium Offtake Agreement

The original lithium offtake agreement between Vulcan Group and Renault was entered into in November 2021. The parties subsequently agreed to amendments of the original agreement, most recently in May 2024, in order to, among other things, postpone the commercial delivery start date and adjust the delivery volumes. Under the amended agreement, Vulcan Group is expected to sell to Renault between 11,000 and 29,000 metric tonnes of battery-grade LHM over an initial six-year term (which may be extended by an additional five years), with commercial delivery scheduled to commence in 2028. Conditions precedent to the start of commercial delivery include the commencement of commercial production and the lithium product being qualified for use in accordance with customary industry standards. Should one or more of these conditions precedents not be met or not be met in the designated timeframe, Renault has the right to terminate the agreement.

8.16.3.3 Stellantis Lithium Offtake Agreement

The original lithium offtake agreement between Vulcan Group and Stellantis was entered into in November 2021. The parties subsequently agreed to amendments of the original agreement, most recently in May 2024, in order to, among other things, postpone the commercial delivery start date and adjust the delivery volumes. Under the amended agreement, Vulcan Group is expected to sell to Stellantis between 172,500 and 267,000 metric tonnes of battery-grade LHM over an initial ten-year term (which may be extended), with commercial delivery scheduled to commence in 2027. Stellantis expects to use the battery-grade LHM at its European battery production facilities across Italy, Germany and France. Conditions precedent to the start of commercial delivery include the commencement of commercial production and the lithium product achieving full product qualification. Should one or more of these conditions precedents not be met or not be met in the designated timeframe, Stellantis has the right to terminate the agreement.

8.16.3.4 LG Energy Lithium Offtake Agreement

The original lithium offtake agreement between Vulcan Group and LG Energy was entered into in January 2022. The parties subsequently agreed to amendments of the original agreement, most recently in April 2024, in order to, among other things, postpone the commercial delivery start date and adjust the delivery volumes. Under the amended agreement, Vulcan Group is expected to sell to LG Energy between 25,000 and 45,500 metric tonnes of battery-grade LHM over an initial five-year term (which may be extended by an additional five years), with commercial delivery scheduled to commence in 2027/28. Conditions precedent to start of commercial delivery include securing of project finance, construction and commissioning of the plants, commencement of commercial production by end of 2028 and the lithium product meeting agreed specifications by the agreed timeline. Should one or more of these conditions precedents not be met or not be met in the designated timeframe, LG Energy has the right to terminate the agreement.

8.16.3.5 Volkswagen Lithium Offtake Agreement

The original lithium offtake agreement between Vulcan Group and Volkswagen was entered into in December 2021. Under the agreement, Vulcan Group is expected to sell to Volkswagen 38,000 metric tonnes of battery-grade LHM over an initial five-year term (which may be extended by an additional five years), with commercial delivery originally scheduled to start in 2026. The parties have also agreed to a first right of refusal to invest in additional capacity in the Project. Conditions precedent to the start of commercial delivery include commencement of commercial operation by end of 2026 and the lithium product achieving full product qualification and the development of a future phase beyond Phase One, with the timing yet to be defined. Should one or more of these conditions precedents not be met or not be met in the designated timeframe, Volkswagen has the

right to terminate the agreement. The terms of the agreement are yet to be amended for the agreement to apply to a future phase of production beyond Phase One (with the timing yet to be defined)).

8.16.4 Other Material Agreements

8.16.4.1 Drilling Equipment Purchase Agreement with Vallourec Deutschland GmbH

In October 2022, Vercana entered into an agreement with Vallourec Deutschland GmbH to deliver casings for the geothermal wells close to Landau as part of the Project ("**Casings Purchase Agreement**"). The casings to which the Casings Purchase Agreement relates are essential drilling equipment required to drill to the target depth required for deep geothermal energy wells in the Upper Rhine Valley, Germany.

8.16.4.2 Land option agreement with City of Landau

On 25 November 2024, Vulcan Group and the City of Landau signed a reservation agreement for the relevant land plots of the industrial area D12 to construct the Phase One GLEP plant. The reservation is binding until 30 July 2025. The reservation is free of charge and enables Vulcan to perform early construction works on the site (in dependence of the relevant building permits) at own risk. The final land acquisition, as the result of the land reservation, is dependent on a final positive decision by the city council Landau, which is expected for the second quarter of 2025. Therefore, the conditions defined in the reservation contract need to be fulfilled.

8.16.4.1 Site Letter of Intent Agreement with Infraserv

In September 2021, the Company signed a letter of intent agreement with chemical park management company Infraserv, to secure a site for its planned CLP, at the Höchst Chemical Park (*Industriepark Höchst*), located in Frankfurt am Main. Vulcan Group currently intends to use the CLP to be constructed at the Höchst Chemical Park as a processing hub, processing lithium chloride from multiple combined geothermal and lithium sorption plants into LHM monohydrate. Pursuant to the agreement, and following its transfer to Vulcan Projektgesellschaft 2 GmbH in early 2024 and the subsequent repeated exercise by Vulcan Projektgesellschaft 2 GmbH of an extension option, Infraserv reserves the site exclusively for Vulcan Projektgesellschaft 2 GmbH up to 31 January 2025 for a reservation fee (based on a fee per square metre plus value added tax), whereas Vulcan Projektgesellschaft 2 GmbH is not entitled to use the site during the reservation period. The site in Höchst to which the agreement relates has a close proximity to Vulcan Group's Project Licence areas.

9. GENERAL INFORMATION ABOUT THE COMPANY

9.1 Company name, incorporation, registered office and financial year

The Company's legal name is Vulcan Energy Resources Limited, incorporated and registered in Western Australia, Australia, under Australian Company Number 624 223 132. The Company's legal entity identifier (LEI) is 8945006OYFHQ9HE4XE54.

The Company's registered office and business address is Unit 1, 11/1 Spring Street, Perth WA 6000, Australia. The Company's telephone number is +61 8 6331 6156, the Company's website is www.ver.eu. The information on the Company's website is neither part of, nor incorporated by reference into, this Prospectus.

The Company's financial year begins on 1 January and ends on 31 December.

The Company does not have a specified corporate purpose/object (in line with Australian corporate law).

The Company is incorporated for an indefinite period and will remain a company until deregistered or wound up. Subject to the satisfaction of certain requirements, the Company can be deregistered or wound up voluntarily (i.e. following approval at a general meeting of Shareholders) or by court order in case the Company is insolvent.

9.2 History of the Company

The Company was incorporated on 5 February 2018 under the name Koppar Resources Limited by Pheakes Pty Ltd (a public company limited by shares incorporated in Australia with registered address at 81 Philip Road, Dalkeith WA 6009, Australia) and was admitted to the official list of ASX on 30 May 2018 as Koppar Resources Limited (ASX Code: KRX) and, since September 2019, as Vulcan Energy Resources Limited (ASX Code: VUL). Still in 2018, the Company completed the acquisition of Koppar Resources Europe Pty Ltd (later renamed Kuniko Limited) and, in 2019, of Vulcan Energy Resources Pty Ltd (later renamed Vulcan Energy Resources Europe Pty Ltd).

In 2021, the Company's wholly owned subsidiary Vulcan Energie acquired GGH (meanwhile merged into Vulcan Energie), Gec-co (now VEE) and GeoT (renamed VESS, and subsequently merged into Vulcan Energie). In 2021, VER GEO LIO GmbH completed the acquisition of Natürlich Insheim. In the same year, Kuniko (containing Vulcan Group's non-core Norwegian battery metals assets) was spun off in order for the Company to focus on the Project.

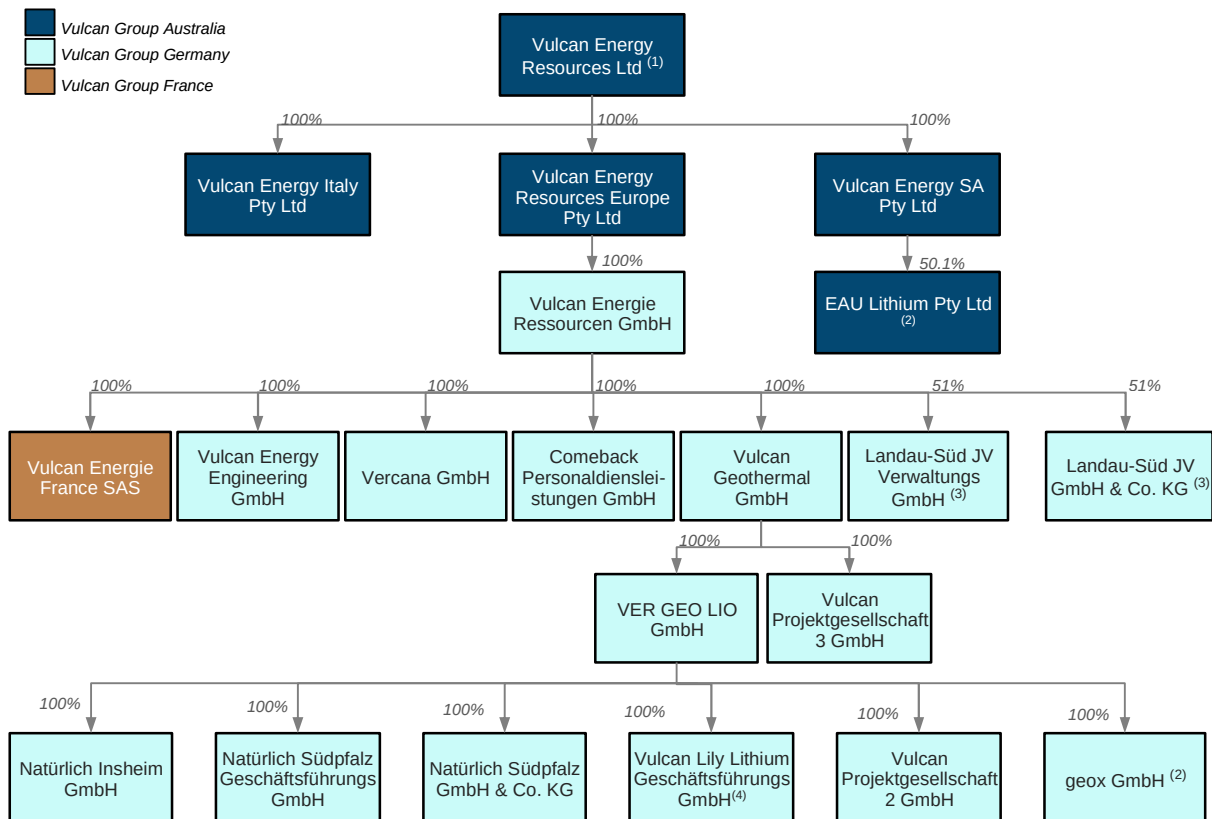
On 14 February 2022, the Company's Shares were admitted to trading on the regulated market (*Regulierter Markt*) of the FSE with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard), making the Company the first Australian company with a listing on the regulated market (*Regulierter Markt*) of the FSE.

In 2023, the Company's wholly owned subsidiary Vulcan Energie acquired Comeback and, in September 2024, the Company entered into an agreement to acquire geox GmbH via its subsidiaries VER GEO LIO GmbH and Vulcan Energie.

9.3 Group structure

The Company is the parent company of Vulcan Group. As the parent company of Vulcan Group, the Company performs certain group management functions including strategic planning and public relations. The structure of Vulcan Group as of the date of this Prospectus is shown in Figure 11.

Figure 11: Vulcan Group Structure



- (1) Vulcan Energy Resources Ltd also holds a minority interest in Kuniko Limited.
- (2) Vulcan Group's intention is to dilute its holding in EAU Lithium Pty Ltd to a minority holding, to maintain focus on its Lionheart Project.
- (3) The acquisition of geox by VER GEO LIO GmbH and of the relevant shares/interests of Landau-Süd JV Verwaltungs GmbH and Landau-Süd JV GmbH & Co. KG, respectively, has not yet completed as of the date of this Prospectus.
- (4) By agreement notarised 2 December 2024 it has been agreed to rename Vulcan Lily Lithium Geschäftsführungs GmbH to Lionheart Marketing GmbH; this change of the company's name and the changed purpose of this entity (both changes to the articles of association of this entity) still need to be registered with the company register which is expected to happen in the course of December 2024.

9.4 Subsidiaries

Table 22 provides an overview of the Company's subsidiaries as at the date of this Prospectus. All of the shares in these subsidiaries are fully paid ordinary shares.

Table 22: Subsidiaries of Vulcan Energy Resources Limited (as at the date of this Prospectus)

Company name	Registered office, country of incorporation	Field of activity	Proportion of share capital held by the Company	Issued capital
Vulcan Energy Resources Europe Pty Ltd	Perth, Australia	Holding Company	100% (directly)	100 fully paid ordinary shares
Vulcan Energy Italy Pty Ltd	Perth, Australia	Holding Company	100% (directly)	10 fully paid ordinary shares
Vulcan Energie Ressourcen GmbH	Karlsruhe, Germany	Holding Company / Geothermal Energy	100% (indirectly)	EUR 25,000
Vulcan Energy Engineering GmbH (formerly Gec-co Global Engineering &)	Neusäß (Augsburg), Germany	Engineering / Consultancy	100% (indirectly)	EUR 25,000

Company name	Registered office, country of incorporation	Field of activity	Proportion of share capital held by the Company	Issued capital
<i>Consulting-Company GmbH</i>				
Vulcan Geothermal GmbH	Karlsruhe, Germany	Holding Company	100% (indirectly)	EUR 25,000
VER GEO LIO GmbH	Karlsruhe, Germany	Holding Company	100% (indirectly)	EUR 25,000
VERCANA GmbH	Karlsruhe, Germany	Drilling Services	100% (indirectly)	EUR 25,000
Natürlich Insheim GmbH	Karlsruhe, Germany	Geothermal Energy	100% (indirectly)	EUR 6,920,000
Natürlich Südpfalz Geschäftsführungs GmbH	Landau, Germany	Geothermal Energy	100% (indirectly)	EUR 25,000
Natürlich Südpfalz GmbH & Co. KG	Landau, Germany	Geothermal Energy	100% (indirectly)	EUR 25,000
Vulcan Energie France SAS	Haguenau, France	Geothermal Energy	100% (indirectly)	EUR 100,000
Comeback Personaldienstleistungen GmbH	Lingen, Germany	Personnel services	100% (indirectly)	EUR 25,000
Vulcan Projektgesellschaft 2 GmbH	Karlsruhe, Germany	Geothermal Energy	100% (indirectly)	EUR 25,000
Vulcan Projektgesellschaft 3 GmbH	Karlsruhe, Germany	Geothermal Energy	100% (indirectly)	EUR 25,000
Vulcan Lily Lithium Geschäftsführungs GmbH	Karlsruhe, Germany	Geothermal Energy	100% (indirectly)	EUR 25,000
Vulcan Energy SA Pty Limited	Perth, Australia	Holding Company	100% (directly)	100 fully paid ordinary shares
Landau-Süd Joint Venture Verwaltungs GmbH ⁽¹⁾	Landau, Germany	Geothermal Energy	51% (indirectly)	EUR 25,000
Landau-Süd Joint Venture GmbH & Co.KG ⁽¹⁾	Landau, Germany	Geothermal Energy	51% (indirectly)	EUR 100,000
EAU Lithium Pty Ltd	Perth, Australia	Holding Company	50.1% (indirectly)	1,000 fully paid ordinary shares
geox GmbH ⁽¹⁾	Landau, Germany	Geothermal Energy	100% (indirectly)	EUR 1,200,000

⁽¹⁾ The acquisition of geox by VER GEO LIO GmbH and of the remaining shares/interests of Landau-Süd JV Verwaltungs GmbH and Landau-Süd JV GmbH & Co. KG, respectively, has not yet completed as of the date of this Prospectus.

9.5 Statutory auditors

The Company's statutory auditor is RSM Australia Partners, Level 32, 2 The Esplanade, Perth WA 6000, Australia ("**RSM**"). RSM is a practice entity member of Chartered Accountants Australia and New Zealand, 33 Erskine Street, Sydney NSW 2001, Australia. RSM is subject to oversight and review by the Australian Securities and Investments Commission ("**ASIC**"). Under s1280 of the Australian Corporations Act, ASIC has the power to register individuals as Registered Company Auditors. The current audit engagement leader, Matthew Beevers, is a Registered Company Auditor with ASIC (Registration numbers: 320235) and is registered pursuant to section 134 the German Public Accountant Act (*Wirtschaftsprüferordnung – WPO*). Correspondingly, the previous audit engagement leaders, Tutu Phong and Aik Kong Ting, were Registered Company Auditors with ASIC (Registration numbers: 322652 and 509265 respectively) and at the time were registered pursuant to section 134 the German Public Accountant Act (*Wirtschaftsprüferordnung – WPO*).

RSM audited the Consolidated Annual Financial Statements in accordance with IASB IFRS and issued unqualified independent auditor's reports which are contained in this Prospectus. The respective auditor's reports of RSM refer to the Consolidated Annual Financial Statements and the respective group management reports of Vulcan Group as a whole. The group management reports of Vulcan Group are neither included nor incorporated by reference in this Prospectus.

The EU Commission established the equivalence of auditing standards for Australia in Decision 2011/30/EU of 19 January 2011 (also see section "2.11 Notes concerning currency and financial information").

9.6 Announcements

As the Company is admitted to the Official List of ASX, the Company is considered a "disclosing entity" for the purposes of the Australian Corporations Act. As a disclosing entity, the Company is subject to regular reporting and disclosure requirements. Specifically, like all companies admitted to the official list of ASX, the Company is required to continually disclose to the market any information it has that a reasonable person would expect would have a material effect on the price or value of the Company's securities.

The Company's announcements are published on the website of ASX at www.asx.com.au. The Company may also provide certain information to Shareholders by post or by electronic communication (for example, by email or publication on the Company's website at <https://v-er.eu/information-for-investors/>).

Notices required under applicable laws governing stock exchange transactions will be published in the Federal Gazette (*Bundesanzeiger*) and, if required by mandatory legal provisions, by media distributed across the entire EEA.

Should the terms of the Institutional Offer be changed, such change will be published by means of electronic media (such as Reuters or Bloomberg) and, if required by Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014 on market abuse, as amended, as an ad-hoc release via an electronic dissemination information system, on the Company's website (<https://v-er.eu/announcements/>) and as a supplement to the Prospectus.

Notices relating to the approval of this Prospectus or any supplements thereto will be published in the manner stipulated for the Prospectus in compliance with the provisions of the Prospectus Regulation, i.e. by way of publication on the Company's website: <https://v-er.eu/information-for-investors/>.

10. REGULATORY FRAMEWORK

Vulcan Group's business operations are subject to various laws, rules and regulations. The failure to comply with any of these laws may subject Vulcan Group to civil liability, administrative orders, fines or, potentially, criminal sanctions.

The following provides a brief overview of certain selected regulatory provisions with a focus on the EU and Germany (being the jurisdictions in which Vulcan Group's primary operations are located) applicable to Vulcan Group's business operations. While the relevant laws and regulations are typically of a national scope, within the EU, a considerable degree of regulatory harmonisation exists in a number of areas relevant to Vulcan Group's business. The EU has created a common regulatory framework that applies not only in Vulcan Group's most important market Germany, but in all member states of the EU and comprises directives and regulations. Regulations do not require implementation into national law and apply directly and uniformly in all member states of the European Union. Directives, however, only become effective once they are transposed into national law in the respective member state of the European Union and the implementation of directives may vary between member states. In addition, Vulcan Group has to comply with certain non-EU regulations due to, for example, its incorporation in Australia.

10.1 EU

10.1.1 New Battery Regulation

Vulcan Group's lithium business involves the production of LHM from lithium chloride to create the performance compound battery-grade LHM. The lithium will be generated from geothermal waters in an existing, and one new, renewable energy plant. Vulcan Group is therefore part of the battery value chain, but is not itself a battery producer.

Batteries that are more sustainable throughout their life cycle are key for the goals of the European Green Deal and contribute to the zero-pollution ambition set in it. The new so-called Circular Economy Action Plan, which is one of the building blocks of the European Green Deal and Europe's new agenda for sustainable growth, also contains measures strengthening the entire life cycle of products which includes, inter alia, the aim of a new regulatory framework for batteries for enhancing the sustainability and boosting the circular potential of batteries. For that purpose, the EU has adopted the New Battery Regulation in 2023 which requires batteries to meet certain mandatory green and social requirements before entering the EU market and require companies to disclose the carbon footprint of each battery. The New Battery Regulation applies in a staggered fashion, starting from February 2024.

The New Battery Regulation contains progressive requirements to minimise the carbon footprint over the life cycle of batteries. In this context, efforts to decrease the carbon footprint in the manufacturing process will indirectly lead to the promotion of renewable energy generation. In the recital 29 of the New Battery Regulation, the EU Commission states explicitly that certain substances contained in batteries, such as, inter alia, lithium, are acquired from scarce resources that are not easily available in the EU and that this is an area where Europe needs to enhance its strategic autonomy and increase its resilience in preparation for potential disruptions in supply. Vulcan Group's lithium business producing lithium chemical from a renewable energy plant is thus part of the value chain addressed in the New Battery Regulation Proposal.

Based on the New Battery Regulation, batteries placed on the EU market should be sustainable, high-performing and safe all along their entire life cycle. This means batteries that are produced with the lowest possible environmental impact, using materials obtained in full respect of human rights as well as social and ecological standards. Batteries have to be long-lasting and safe, and at the end of their life, they should be repurposed, remanufactured or recycled, feeding valuable materials back into the economy. Moreover, the New Battery Regulation introduces certain mandatory requirements for placing batteries on the market, such as use of responsibly sourced raw materials with restricted use of hazardous substances, minimum content of recycled materials, carbon footprint, performance and durability and labelling, as well as meeting collection and recycling targets. Vulcan Group intends to use a software solution developed by Circular that enables customers to track raw materials throughout supply chains to demonstrate responsible sourcing. In addition, the New Battery Regulation provides to introduce targets for the minimum share of, inter alia, recovered lithium in active materials in batteries.

10.1.2 Carbon Border Adjustment Mechanism

As an essential part of its so-called "Fit for 55 Package", the EU has revised its EU climate goals and intends to reduce net greenhouse gas emissions by at least 55% by 2030. Next to a revision of the existing EU's emissions trading system (EU ETS), which covers the greenhouse gas emissions caused in the EU, the EU also intends to introduce a carbon border adjustment mechanism ("**CBAM**") which shall address the greenhouse gas emissions outside of the EU. The objective of CBAM is to prevent that the emissions reduction efforts of the EU are offset by increasing emissions outside its borders through relocation of production to non-EU countries (where policies applied to fight climate change are less ambitious than those of the EU) or increased imports of carbon-intensive products. CBAM is designed to function in parallel with the EU ETS, to mirror and complement its functioning on imported goods.

The background of the CBAM is that producers in the EU may have higher production costs due to the fact that they have to cover greenhouse gas emissions with allowances from the EU ETS. For the producers outside of the EU, the EU ETS does not apply so that the respective costs for allowances does not occur resulting in lower production costs. In order to avoid that carbon-intensive production could move to countries with less strict climate policies and that imported products could have price advantages at the expense of the environment, the CBAM shall require EU companies importing certain goods into the EU to buy CBAM certificates equivalent to the carbon price that would have been paid if the goods had been produced under the EU's carbon pricing rules (i.e. under the EU ETS). Imports covered by the CBAM regime would include power and industrial sector goods such as those involved in the manufacturing of cement, steel, chemicals and fertilisers, as well as electricity and hydrogen, and it is thought that chemicals such as LHM could eventually be covered by the regime.

The CBAM was adopted by the EU legislative bodies in April 2023 and entered into force on 1 October 2023. The CBAM regime is being introduced through a transitional period commencing in 2023 with full implementation by 2026. By the end of the transition period, the EU Commission will also evaluate how the CBAM is working and whether to extend its scope to more products and services.

The Company believes that the CBAM regime may provide a significant incentive for European companies to source sustainably produced lithium chemicals from within Europe and may have a positive effect on the price Vulcan Group is able to achieve for its lithium product in future sales contracts.

10.1.3 REACH Regulation

The use, manufacture and importing of chemicals is regulated in the European Union through Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended ("**REACH**"). Its main objectives include improving the protection of human health and the environment from the risks that can be posed by chemicals and ensuring the free circulation of substances in the internal market of the EU. REACH establishes three procedures consisting of the registration, evaluation and authorisation of chemical substances and mixtures. Vulcan Group will use, if and when it commences commercial production, chemical substances and chemical mixtures as part of its production processes. Vulcan Group does not import chemical substances and mixtures into the European Union/European Economic Area but rather uses chemical substances and mixtures sourced within the European Union/European Economic Area in their industrial or professional activities. As a consequence, Vulcan Group is subject to REACH as a downstream user. In addition, also the substance lithium is to be registered under REACH and thus subject to registrations requirements. Thus, Vulcan Group is also subject to REACH as a manufacturer to the extent Vulcan Group extracts lithium as a chemical substance within the European Economic Area.

As a rule, REACH applies to all chemical substances. In principle, all manufacturers and importers of chemicals in the EU are responsible for collecting information on the properties and uses of the substances they manufacture or import and must identify and manage risks linked to the substance they manufacture and market. For substances produced or imported in quantities of one ton or more per year per company, manufacturers and importers need to demonstrate that they have appropriately done so by means of a registration dossier, which shall be submitted to ECHA. The registration dossier contains the hazard information and, where relevant, an assessment of the risks that the use of the substance may pose and how these risks should be controlled. The ECHA reviews the dossier for compliance with REACH and evaluates testing proposals to ensure that the assessment of the chemical substances will not result in unnecessary testing, especially on animals.

Where appropriate, authorities may also select substances for a broader substance evaluation to further investigate substances of concern. The registration is based on the "one substance, one registration" principle. This means that manufacturers and importers of the same substance have to submit their registration jointly. The analytical and spectral information provided should be consistent and sufficient to confirm the substance identity.

Manufacturers and importers must provide their downstream users with the risk information they need to be able to use the substances safely. This is done via a classification and labelling system and safety data sheets as needed. Depending on the circumstances (i.e. the individual substances used, inclusion of substance in end product), a downstream user can have the following obligations: make uses known to the registrants (i.e. suppliers); identify and apply the appropriate measures described in the safety data sheets; contact suppliers with new information on the hazard of the substance or mixture or if the risk management measures are not appropriate.

REACH also provides for an authorisation system aiming to ensure that substances of very high concern are adequately controlled and progressively substituted by safer substances or technologies or only used where there is an overall benefit to society from using the substance. These substances are prioritised and gradually included in Annex XIV to REACH. Once they are included, companies have to submit applications to the ECHA on authorisation for continued use of these substances which are otherwise prohibited. In addition, EU authorities can impose restrictions on manufacturing, use or sale of substances which cause an unacceptable risk to human health or the environment. Given that Vulcan Group intends on producing lithium in an ecologically friendly manner from naturally occurring brines, production will likely not require 'substances of very high concern'.

The REACH Regulation was supplemented by the Regulation (EC) No. 1272/2008 on classification, labeling and packaging of substances and mixtures ("**CLP Regulation**"), as amended by Delegated Regulation (EU) 2022/692 of 16 February 2022, including comprehensive implementing legislation. The CLP Regulation applies for the substances and mixtures listed in Annex 1 to the CLP Regulation. The CLP Regulation seeks to, inter alia, ensure that EU workers and consumers are clearly informed of the hazards associated with chemicals by means of a system of classification, labeling and packaging. The aim is to ensure that the same hazards are described and labeled in the same way in all EU countries. The CLP Regulation provides for manufacturers, importers and downstream users uniform requirements for the classification, labeling and packaging of chemical substances and mixtures according to the United Nations' Globally Harmonized System of classification and labeling of chemicals. It requires companies falling under the scope of the CLP Regulation to classify label and package appropriately their hazardous chemicals before placing them on the market. Downstream users who place substances and mixtures on the market must classify the chemical according to CLP Regulation. They may use the classification provided to them by their supplier or may classify it themselves. If downstream users use a classification that is different to that of all of their suppliers, then they need to report this to ECHA.

On 14 October 2020, the European Commission adopted its Chemicals Strategy for Sustainability which is part of the EU's zero pollution ambition, a key goal of the European Green Deal, and which aims to better protect citizens and the environment from harmful chemicals, and boost innovation by promoting the use of safer and more sustainable chemicals. To achieve these objectives, the strategy includes a revision of REACH and CLP Regulation. On 19 December 2022, the EU Commission proposed a revision to the CLP Regulation introducing, among other things, a new hazard class for endocrine disruptors and certain other harmful substances. As of end 2024, the REACH Regulation is undergoing revision by the Commission to align with its Better Regulation provisions.

10.1.4 Water Framework Directive

Vulcan Group is subject to EU regulations on water use and protection (implemented by the applicable national laws) as during the course of the production processes water is used and disposed of. Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, as amended ("**Water Framework Directive**") includes a comprehensive approach to water protection. The Water Framework Directive has been implemented in Germany in the German Federal Water Act (cf. for further details below).

Groundwater is protected by both the Water Framework Directive and Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration, as amended ("**Groundwater Subsidiary Directive**"),

implemented in Germany in the German Groundwater Ordinance entered into force on 16 November 2010, which lays down detailed quality criteria for the assessment of the groundwater's chemical status, including standards set at the EU level and requirements for threshold values to be set at the member state level. The Groundwater Subsidiary Directive requires member states to establish measures to prevent the input of hazardous substances into the groundwater and limit the introduction of other pollutants.

Discharge of waste water and its treatment is regulated by Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment, as amended. This directive addresses the collection, treatment and discharge of urban waste water and the treatment and the discharge of waste water from certain industrial sectors. Its aim is to protect the environment from any adverse effects caused by the discharge of such waters.

10.1.5 Renewable Energy Directive II

On 11 December 2018, the European Parliament and the Council of the European Union adopted Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources ("**RED II Directive**"), which was announced in the Official Journal of the European Union on 21 December 2018. The main objective of the Directive is to increase the share of renewable energy in the European electricity mix to at least 32% by 2030. It is intended to contribute to achieving the climate protection goals of the Paris Agreement.

The RED II Directive contains, among others, also new regulations on administrative procedures for the permitting of renewable energy plants. Lengthy administrative procedures are considered as a major administrative barrier and costly. Due to the RED II Directive administrative permit granting processes shall be simplified and clear time-limits for decisions to be taken by the authorities competent for issuing the authorisation for the electricity generation installation on the basis of a completed application shall be introduced. These regulations should stimulate a more efficient handling of procedures, thereby reducing administrative costs. The provisions of the RED II Directive must have been transposed into national law by the member states by 30 June 2021. In relation of permitting procedures in connection with geothermal uses, the requirements of the RED II Directive have been implemented in the German mining law (see below).

On 14 July 2021, the European Commission proposed a revised RED (so-called RED III Directive), which, in particular, provides for a binding EU minimum share of renewable energy sources in final energy consumption of 40 % by 2030.

10.1.6 Corporate Sustainability Reporting Directive

On 5 January 2023, the Directive (EU) 2022/2464 of the European Parliament and the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting ("**CSRD**"), which was adopted by the European Parliament and the Council of the European Union in November 2022 and published in the Official Journal of the European Union on 16 December 2022, entered into force.

Large and listed EU companies, as well as large third country companies which do substantial business in the EU or have securities listed on EU regulated markets will now be required to report on sustainability. The first companies will have to apply the new rules for the first time in financial year 2024, for reports published in 2025.

The CSRD modernises and strengthens the rules about the social and environmental information that companies have to report. Companies subject to the CSRD will have to report on sustainability matters in line with the European Sustainability Reporting Standards (ESRS) developed by the European Financial Reporting Advisory Group. On 31 July 2023, the EU Commission adopted the first set of European Sustainability Reporting Standards based on the drafts submitted by the European Financial Reporting Advisory Group in November 2022.

The CSRD also makes it mandatory for companies to have an audit of the sustainability information that they report. In addition, it provides for the digitalisation of sustainability information.

10.1.7 Critical Raw Materials Act

On 23 May 2024 the new Regulation (EU) 2024/1252 ("**Critical Raw Materials Act**"), also referred to as Critical Raw Materials Act, became effective, implementing the EU Commission's proposal for

a regulation to create a framework which seeks to significantly increase and diversify the EU's critical raw materials supply, strengthen circularity and support research and innovation.

The Critical Raw Materials Act aims to (i) identify strategically important raw materials (which includes lithium), (ii) create an EU wide network of raw materials agencies enabling collective diversification, stockpiling and investment decisions, (iii) support projects and attract more private funding by granting streamlined procedures and better access to finance and thus strengthening the supply chains and (iv) ensure a strong and sustainable playing field by harmonising e.g. certification on environmental and social performance or regulation on waste streams, recycling and strategic storage.

The Critical Raw Materials Act specifies certain benchmarks for critical raw materials that are to be achieved by 2030:

- The extraction capacity should cover at least 10% of the EU's annual consumption of strategic raw materials, insofar as the raw material reserves in the EU permit.
- The processing capacity should cover at least 40% of the EU's annual consumption of strategic raw materials.
- Recycling capacity should cover at least 15% of the EU's annual consumption of strategic raw materials.
- Imports should be diversified so that by 2030 the EU's annual consumption of each strategic raw material at each relevant stage of processing is based on imports from several third countries, none of which covers more than 65% of annual consumption.

In addition, Regulation (EU) 2024/1735 came into force 14 June 2024, as a regulation on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem.

10.1.8 ECHA Proposals

With its opinion dated 16 September 2021, ECHA's risk assessment committee has proposed to re-classify lithium as a hazardous substance of category 1A. If adopted as proposed, this proposal would result in tighter regulation on processing, packaging and storage of lithium across the EU.

In addition, authorities in Denmark, Germany, the Netherlands, Norway and Sweden ECHA have recently submitted a proposal to ECHA for the restriction of per- and polyfluoroalkyl substances aimed at reducing such substances' emissions into the environment which was subject to public consultation until September 2023. If adopted as proposed, the proposal could result in the phasing out of the use of polytetrafluoroethylene polymer, or PTFE, membranes.

10.2 Germany

10.2.1 Federal Mining Act (*Bundesberggesetz*)

10.2.1.1 Permits under mining law

Vulcan Group is subject to the German mining law as the exploration and production of geothermal and lithium fall within the scope of the German Federal Mining Act (*Bundesberggesetz* – "**BBergG**"). As a result, the exploration and development activities for Vulcan Group's lithium and renewable energy businesses require the necessary permits pursuant to the BBergG. The underground land and mineral resources are subject to a specific system of property and use rights which are further defined under the BBergG. These provisions differentiate between so-called "freely mineable resources" (*bergfreie Bodenschätze*) and "freehold resources" (*grundeigene Bodenschätze*). Whereas freehold resources are part of the property of each landowner, the freely mineable resources are not part of the property of the landowner so that ownership in land shall not extend to these freely mineable resources. The provisions of the BBergG provide an exhaustive list of freely mineable resources which also includes lithium as well as geothermal heat.

In contrast to the use of freehold resources, the use of freely mineable resources requires several mining authorisations. In this regard, the BBergG contains a detailed and stepwise permitting system. Under this system,

- in a first step, a so-called mining authorisation (*Erlaubnis zur Aufsuchung*) has to be obtained which give an exclusive right to explore. When the resource is proven, a production authorisation (*Bewilligung der Gewinnung*) allows the production of the relevant resource;
- in a second step, the specific mining activities to actually explore and extract the resource (as an exercise of the previously granted mining authorisation), are subject to a specific approval system, in particular the mining operations plan procedure (*Betriebsplanverfahren*).

10.2.1.1.1 Mining authorisations (first step)

Under the BBergG the use of freely mineable resources is only permissible with a mining authorisation. An exploration licence (*Erlaubnis zur Aufsuchung*) is needed for exploring freely mineable resources, and a production licence (*Bewilligung der Gewinnung*) gives the right to extract freely mineable resources. The authorisation requirements are aimed at an economic ordering function: through granting new mining authorisations and the administering of existing mining authorisations the state can regulate and control which entities in which area are allowed to explore and extract freely mineable resources.

In particular, an exploration licence gives the licence holder the exclusive right to explore the resources specified in the exploration licence, the production licence to extract them and to acquire ownership in the resources. These rights are limited to a specific extraction field (*Erlaubnis-/Bewilligungsfeld*) and exclude third parties from exploring for or extracting the same resource (for example, geothermal energy) in the same extraction field. Furthermore, a production licence is granted for a limited period of time which is adjusted to the specific mining activity. This period is usually rather long and as a general rule should not exceed a period of 50 years (unless the size of the investment in the mining activity in the single case requires a longer extraction period).

All licences are granted upon application. Importantly, the decision is a conditional decision (*gebundene Entscheidung*) with no discretion of the authority so that the applicant has a right to receive the licence if all legal conditions are met. The requirements for a mining authorisation vary according to whether an exploration licence or a production licence is requested. The requirements for a production licence include, inter alia, the precise identification of the relevant natural resources, a work program showing that the work is adequate in terms of nature, scope and purpose, that the required reliability of the operator is given and that major public interests do not oppose the project. Furthermore, it must be demonstrated that the natural resources are actually profitable, and that economic extraction can be expected in the whole extraction field in the future. Beyond the provisions of the BBergG to the mining authorisation and mining operational plan, an entrepreneur may have to fulfil certain specific additional requirements, for example, those of the Mining Ordinance for Drilling (*Tiefbohrverordnung*) or Ordinance on Hazardous Substances (*Gefahrstoffverordnung*).

10.2.1.1.2 Operational plan procedure (second step)

The granting of a mining authorisation does not yet permit the actual production activity. For this, approval of so-called operational plans (*Betriebspläne*) is required. Whereas the mining authorisation decides who is allowed to explore and exploit minerals, the operational plans permit the actual activities and determine the conditions and requirements for the exploration and production activities in line with environmental and mining law requirements, as well as any other public concerns.

The operational plan procedure is a specific permitting procedure set forth in secs. 51 to 57 BBergG for a comprehensive preventative operational control. Specific features of the mining operational plan procedure are the different levels of the approval system, as well as the recurring character of the approval which distinguishes it from other systems which usually have a one-off approval before commissioning of a specific plant.

With regard to the different operational plans, the main planning instrument is the main operational plan (*Hauptbetriebsplan*) which permits the specific mining activities. The main operational plan describes in a precise way the mining project with its type and extent as well, inter alia, the technology used, the delineation to other facilities and water law permits.

In addition, the mining authority can also approve by way of special operational plans (*Sonderbetriebspläne*) single parts of mining operations or specific projects outside of the contents of the main operational plan. The purpose of this approval instrument is primarily to simplify the

procedure. In the context of geothermal facilities, for example, special works such as pipe works or the construction and operation of hot water pipelines may be permitted by way of special operational plans.

In addition to the main operational plan, a mandatory general operational plan (*obligatorischer Rahmenbetriebsplan*) is required and a formal planning approval procedure (*Planfeststellungsverfahren*) must be executed for the approval of such plan if a project requires an environmental impact assessment (*Umweltverträglichkeitsprüfung*, in the following "**EIA**"). In case an EIA obligation does not apply and a mandatory general operational plan is therefore not required, the facultative general operational plan (*fakultativer Rahmenbetriebsplan*) can be applied for.

A terminating operational plan (*Abschlussbetriebsplan*) is required for the termination of the extraction activities and the shut-down of the operations.

With regard to the time period during which a main operational plan is valid, main operational plans must be limited in time and as a general rule shall be limited to a period of two years. The background of the comparatively short term of the main operational plans is the dynamic operational mode of mining activities, which are often further developed locally due to the location of the mineral resources and are therefore subjected to a corresponding continuous control by the authorities. A time limit of more than two years may be allowed as an exception, especially if the course of the operation (*Betriebsverlauf*) is foreseeable.

10.2.1.2 Further permits

The approval for the mining activities granted under the main operational plan or special operational plans does not automatically include all other permits, so that the mining company regularly needs further administrative approvals and permits such as a building permit (*Baugenehmigung*).

10.2.1.3 Current developments in the legal framework of the German mining law

10.2.1.3.1 Lithium extraction

The German legislator has recently adopted changes of the German mining law which, inter alia, aim at further enabling the extraction of lithium that is dissolved in thermal water (cf. BT Drs. 19/28402). These changes entered into force on 18 June 2021. Accordingly, lithium in all forms (i.e. including in dissolved form in thermal water) has been defined to be a freely mineable resource. The background of these changes is that it was previously slightly unclear under the German mining law whether such lithium is actually to be considered as a "freely mineable resource" or as a "freehold resource" under the BBergG. The federal government considered that in the latter case discussions could potentially arise as to which property owner has the right to extract the lithium, whereas in the case of the lithium being clearly defined as a freely mineable resource the respective company can protect its investments by way of obtaining exclusive mining authorisations. With lithium defined as a freely mineable resource, Vulcan Group is not required to obtain title to the properties for its lithium exploration and extraction activities relating to its lithium business.

10.2.1.3.2 Changes in the permitting procedure

The recent changes of the German mining law contain, in addition to the before mentioned amendment on lithium extraction, further provisions on changes to the permitting procedure, which also affect the permitting procedure for plants for the generation of electricity from geothermal energy. The background to these amendments were European requirements (Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of renewable energy sources – RED II), which provide for certain requirements for the administrative procedure for the permitting of installations for the production of energy from renewable sources. The aim is to avoid long administrative procedures for electricity generation plants using renewable energy and to simplify the procedures for the use of renewable energy overall. For this purpose, the following changes in German mining law were adopted, in particular:

- Duration of main operational plans: Previously, the provisions of the BBergG stipulated as a general rule that main operational plans should basically not exceed a period of 2 years. Under the revised BBergG, it has been expressly clarified that the competent authority may determine that main operating plans may also be established for a longer period than for two years if it is possible to control the operation even if the main operating plan has a longer duration, in particular if the course of operations is already foreseeable.

- Simplification of procedures: As part of the recent amendment of the BBergG, new provisions were introduced with the aim to simplify the permitting procedures under the German mining law, i.e. also for the extraction of geothermal energy. The new regulation is intended to ensure that the approval of main and special operational plans and all other approval procedures required under federal or state law are handled by a "single body", i.e. by one centralised authority. This procedure is carried out "at the request of the developer", i.e. the involvement of the single body is voluntary for the applicant. In addition, a procedure manual is to be created. The procedure manual should serve to make it easier for project developers who want to invest in renewable energy to understand the permitting procedures under German mining law. The procedure manual should essentially describe the necessary permitting procedures, provide assistance to applicants on the necessary documents and on how to conduct the procedure and be a source of information on specific procedural questions.

In addition, following the German federal elections, the coalition parties signed their coalition agreement on 7 December 2021, in which the intention was outlined to significantly expedite the permitting process with the goal of accelerating the expansion of renewables.

In July 2024, the Federal Ministry for Economic Affairs and Climate Action (BMWK) has proposed a geothermal acceleration act which would, if enacted as proposed, change regulations relating to deep and shallow geothermal use as well as large heat pumps with the aim to accelerate the development of geothermal projects. If enacted as proposed, the geothermal acceleration act would result in amendments to the BBergG, the Federal Water Act as well as the Building Code (*Baugesetzbuch*). Also, geothermal projects would qualify as "projects of overriding public interest", resulting in a limitation of legal objections and a reduction of permitting times. It is not possible to say when the law will be passed and come into force due to the upcoming elections in Germany in February 2025.

10.2.2 Federal Water Act (*Wasserhaushaltsgesetz*)

Next to mining laws, German water law, in particular the German Federal Water Act – *Wasserhaushaltsgesetz* – "**WHG**" is applicable for the extraction of geothermal waters. Under the WHG, the use of a water body, including the ground water, requires a permit. The "use" of the ground water in a geothermal project includes the drilling into a ground water body (*wasserrechtliche Erlaubnis*). Vulcan Group's plans for drill pad construction require a water law permit for surface water wells. The extraction of ground water, as well as the re-injection of the ground water into the ground water body does not require a water law permit at Vulcan Group's Project Licence areas in the Upper Rhine Valley.

A water law permit can be withdrawn by the competent authority and is granted based on the discretion of the authority. A withdrawal of the permit is however subject to certain restrictions and cannot be withdrawn arbitrarily. Rather, a withdrawal is only possible for a factual reason (in particular one relating to detrimental impacts on the water body resulting from the respective use) and must in any case be in line with the principle of proportionality (i.e. in particular no less restrictive remedies are available to remediate the factual issue).

Whereas water law permits in general remain separate permits, uses of water bodies which are related to mining activities are permitted by the mining authority, which has to coordinate such permits with the competent water authority. Thus, water law permits are often included in the operational plans issued by the competent mining authorities.

Further requirements for groundwater are laid down in the German Groundwater Ordinance (*Grundwasserverordnung*), which in particular contains provisions on uniform threshold values in relation to the chemical status of groundwater.

10.2.3 Renewable Energies Act (*Gesetz für den Ausbau erneuerbarer Energien*)

Vulcan Group is also subject to the German Renewable Energies Act ("**EEG**") insofar as the lithium will be generated from geothermal waters in renewable energy plants which also uses geothermal waters for the production of electricity subsidised under the EEG. The EEG applies to all plants for the generation of electricity from renewable energies and therefore also to the geothermal plants which Vulcan Group operates and intends to operate as a part of its renewable energy business. Renewable energies within the meaning of the EEG also include geothermal energy, i.e. also

geothermal power plants are subject to regulations under the EEG. Depending on the commissioning date of a geothermal power plant, different versions of the EEG (EEG 2004, EEG 2009, EEG 2012, EEG 2014, EEG 2017, EEG 2021 or EEG 2023) can be applicable.

The EEG provides for, inter alia, provisions for the remuneration of electricity produced in renewable energy plants. Under the previous versions of the EEG (EEG 2004, EEG 2009 and EEG 2012) a remuneration by way of statutory fixed feed-in tariffs was the general rule. The EEG 2012 introduced then a new system of direct marketing in form of the market premium model (*Marktprämienmodell*) in which the electricity is marketed directly by the plant operator (or a direct marketing company) at the EPEX energy exchange and – on top – a market premium is paid by the grid operator. This form of direct marketing was under the EEG 2012 still optional and became mandatory under the EEG 2014 (and all later versions).

As Vulcan Group intends to operate geothermal power plants as a part of its renewable energy business and for the extraction of lithium from the geothermal waters, Vulcan Group receives the statutory tariffs or market premium paid under the EEG for the electricity produced in such geothermal power plants and fed into the public grid. The market premium is calculated based on statutory tariffs, known as "reference price" (*anzulegender Wert*), which depends on the relevant energy source. The current applicable statutory tariff for geothermal power plants amounts to 252 EUR/MWh. From this reference price, the reference market value is subtracted. This value basically means that the average monthly value or yearly value (since EEG 2023) for the respective energy source is subtracted to take account of the receipts already achieved by the direct marketing. As a general rule, the remuneration mechanism of the market-premium model still applies under the EEG 2017, EEG 2021 and EEG 2023, with the exception that the reference prices for new plants are no longer determined by way of statutory provisions, but by way of the tender procedures. However, geothermal power plants are still exempted from the requirement to participate in tender procedure, so that the statutory tariff of 252 EUR/MWh remains applicable. For geothermal plants commissioned after 31 December 2023, a decreased statutory tariff applies. As a rule, the statutory tariff decreases by 0.5% on annual basis compared to the preceding year, noting that the statutory tariff in place at the date of commissioning of an individual plant applies to this plant throughout its remuneration period and does not further decrease (see section "6.2.2 The market prices for, and volumes of, electricity and heat produced by Vulcan Group's renewable energy business").

The remuneration under the EEG is typically paid for a period of 20 years beginning from the commissioning date plus the remaining period of the calendar year in which the respective plant was commissioned.

Electricity generated by Vulcan Group in the geothermal power plant as part of its renewable energy business and fed into the public grid is also subject to legal privileges under the EEG. In addition to the provisions on the remuneration of electricity, the EEG also contains obligations of the grid operators to immediately and as a priority connect plants generating electricity from renewable energy sources to the grid connection point. Grid operators are also obliged to physically take off, transmit and distribute immediately as a priority the electricity from renewable energy sources. The obligation to take off the electricity (*Abnahmeverpflichtung*) comprises the complete amount of electricity produced in the respective renewable energy facility.

11. INFORMATION ON THE COMPANY'S CAPITAL

11.1 Issued capital and Shares

As of the date of this Prospectus (not taking into account the New Shares which are expected to be issued on 18 December 2024) the issued capital of the Company comprises:

- 188,188,571 Shares; and
- 3,304,506 unquoted performance rights ("**Performance Rights**") (of various classes).

As of the date of this Prospectus, no unquoted performance shares ("**Performance Shares**") are on issue.

References to 'share capital' in this section "*11 INFORMATION ON THE COMPANY'S CAPITAL*" and elsewhere in this Prospectus are to the Shares (i.e. the fully paid ordinary shares in the capital of the Company) and do not include any Performance Rights or Performance Shares, which do not provide any voting rights or dividend rights prior to any conversion into Shares following the satisfaction of applicable performance criteria. For additional detail on the Performance Rights and the Performance Shares, see section "*11.3 Details of unquoted securities*".

Except for the restrictions described in section "*3.5 Transferability of the Shares*", there are no restrictions on the transferability of the Shares. Each Share on issue is fully paid. For more information about the rights applying to the Shares, see section "*3 INFORMATION ABOUT THE SHARES*".

The Shares are not represented by a physical share certificate. For additional information on the legal title to, and transfers of, the Shares, see section "*3.2 Form and representation of the Shares*".

The Shares have no nominal or par value. The Shares are denominated in Australian dollars (A\$). All of the Shares are fully paid up. The Shares are governed by the Company's Constitution, the Australian Corporations Act, the ASX Listing Rules and Australian general law.

11.2 Development of the share capital over the past three years

As at 1 July 2021, the Company's share capital comprised 108,422,717 shares. As of the date of this Prospectus, prior to completion of the Institutional Offer, the Company has a total of 188,188,571 ordinary Shares on issue, all of which are quoted (and tradeable) on the regulated market (*Regulierter Markt*) of the FSE and the ASX.

11.2.1 Overview

Table 22 sets out the changes in the Company's share capital between 1 July 2021 and the date of this Prospectus.

Table 23: Share capital movement since 30 June 2021

Date	Details	Number of Shares
30 June 2021	Balance as at 30 June 2021	108,422,717
6 July 2021	Shares issued to vendors as partial consideration for the acquisition of GGH (meanwhile merged with and into Vulcan Energie)	+ 11,396
6 July 2021	Shares issued to vendors as consideration for the acquisition of Gec-co (now: VEE), GeoT (now: VESS) and GGH (meanwhile merged with and into Vulcan Energie)	+ 325,000

Date	Details	Number of Shares
19 August 2021	Shares issued to nominee of Nico Rosberg and Rosberg X Racing pursuant to a partnership agreement between the Company and Legacy & Partners S.à r.l., a company affiliated with Mr Nico Rosberg and Rosberg X Racing	+ 32,251
22 September 2021	Placement to sophisticated investors	+ 14,814,815
18 October 2021	Shares issued to existing Shareholders in Australia and New Zealand in connection with share purchase plan	+ 228,434
1 December 2021	Shares issued upon conversion of warrants	+ 521,304
17 December 2021	Placement to (1) Vivien Enterprises Pte Ltd, a company whose sole shareholder is the spouse of Gavin Rezos, (2) Annie Liu, (3) Josephine Bush and (4) Heidi Grön	+ 65,317
17 December 2021	Conversion of Class C Performance Shares and Class F, Class L, Class H, Class N and Class Q Performance Rights	+ 7,186,364
8 February 2022	Shares issued to nominee of Nico Rosberg pursuant to a partnership agreement between the Company and Legacy & Partners S.à r.l., a company affiliated with Mr Nico Rosberg and Rosberg X Racing	+ 37,492
28 June 2022	Shares issued to Stellantis	+ 11,448,959
30 June 2022	Balance as at 30 June 2022	143,094,049
7 July 2022	Shares issued to nominee of Nico Rosberg pursuant to a partnership agreement between the Company and Legacy & Partners S.à r.l., a company affiliated with Mr Nico Rosberg and Rosberg X Racing	+ 58,355
7 July 2022	Conversion of Class H, I and S Performance Rights	+ 182,897
20 December 2022	Conversion of Class R Performance Rights	+ 100,000
31 December 2022	Balance as at 31 December 2022	143,435,301
3 May 2023	Placement to sophisticated investors	+ 21,400,000
6 June 2023	Conversion of Class J and M Performance Rights	+ 2,500,000
30 August 2023	Conversion of Class J Performance Rights	+ 1,000,000
24 November 2023	Conversion of Class G, H, I, M, N, S Performance Rights and class D Performance Shares	+ 3,737,707
31 December 2023	Balance as at 31 December 2023	172,073,008
12 June 2024	Shares issued to Hochtief, HPPL and Victor Smorgon Group	+ 16,000,000

Date	Details	Number of Shares
12 June 2024	Conversion of Class AC, AE, Y Performance Rights and Share issue	+ 115,563
30 June 2024	Balance as at 30 June 2024	188,188,571
Date of issuance of New Shares	Number of Shares expected to be on issue on the date of issuance of the New Shares	214,527,816

11.2.2 Selected current issuances of Shares

In connection with the placement to sophisticated investors on 3 May 2023, the Company issued 21,400,000 new Shares to sophisticated investors at an offer price of EUR 3.08 per new Share, resulting in gross proceeds to the Company in an amount of EUR 66 million.

In connection with the placement to Hochtief, HPPL and Victor Smorgon Group announced on 3 June 2024, the Company issued in total 16,000,000 new Shares to Hochtief, HPPL and Victor Smorgon Group at offer price of EUR 2.50 per new Share, resulting in gross proceeds to the Company in an amount of EUR 40 million.

In connection with and for the purpose of the Institutional Offer generating gross proceeds of EUR 100 million, it is expected that the Company will issue (i) on 18 December 2024 an amount of 26,339,245 New Shares and (i) in January 2024 an amount of 1,680,672 Additional Placement Shares firmly subscribed for by a strategic investor.

11.3 Details of unquoted securities

11.3.1 Performance Rights

Performance Rights are contractual rights granted by the Company to the eligible participants under the terms of the incentive plans. Performance Rights only vest if the applicable performance hurdles determined by the Board of Directors for the Performance Rights are achieved. Each Performance Right entitles its holder to be issued one Share in the Company for nil consideration if the vesting condition(s) applying to that Performance Right are met before their expiry date. Performance Rights do not confer on the holder of the Performance Right any voting rights, dividend rights or the right to receive notice of general meetings of Shareholders.

As of the date of this Prospectus, the Company has 3,304,506 Performance Rights on issue, as set out in Table 24 below. The majority of the Performance Rights were issued under the Company's 2018, 2021 and 2024 Incentive Plans to eligible participants under those plans (being employees and directors of, and contractors to, the Company or associated bodies) as long-term incentives. For further details about the incentive plan under which the Performance Rights were granted see section "12.2.5.2.3 Variable Remuneration – Long-Term Incentives (LTI)".

Table 24: Performance rights on issue

Class	Expiry Date	Vesting criteria	Number of Performance Rights on issue
Class S	30 June 2025	One third vesting 12 months from the date of the 24 June 2021 General Meeting ("EGM"), one third vesting 24 months from EGM, one third vesting 36 months from EGM.	12,894
Class T	1 December 2024	The Company being issued a building permit for the first geothermal power plant or, in the case of a pure heating project with no electricity production,	10,000

Class	Expiry Date	Vesting criteria	Number of Performance Rights on issue
Class V	1 December 2024	the transfer station, on or before the expiry date of 1 December 2024. The Company being granted a permit according to German Immission Control Act (<i>BImSchG</i>) for the first lithium refinery, on or before the expiry date of 1 December 2024.	10,000
Class Z	1 December 2024	The Company obtaining project financing for the first commercial plant on or before the expiry date of 1 December 2024.	50,000
Class AA	30 June 2026	The combination of the following three criteria: 1. Various personal milestones as agreed between the Company and the recipient (30%); 2. Obtaining sufficient funding in order to allow for completion of the first plant that will be able to produce lithium on a commercial scale, and/or the first new commercial geothermal heating plant, in accordance with Vulcan Group's business plan (First Plant) by 30 June 2023 (30%); and 3. the following shared objectives (40%): <u>People:</u> a) >80% retention rate for agreed critical roles at all levels of the organisation for FY 23 onwards; and b) increased employee satisfaction rate based on previous annual internal employee satisfaction survey. <u>Environment:</u> c) obtain an ESG rating from a recognised third party ESG provider that is above 50%; d) obtain a carbon neutral emission certification from a recognised third-party issuer where Vulcan Group's carbon emissions footprint is measured and offset by supporting credible carbon offset projects and verified	26,903

Class	Expiry Date	Vesting criteria	Number of Performance Rights on issue
		across all business units by 30 June 2023; and e) reporting of climate related impacts, risks and opportunities management by Vulcan Group according to the Taskforce for Climate-Related Financial Disclosures (TCFD) guidelines and/or report according to the Taskforce for Nature-Related Financial Disclosures (TNFD). <u>Social:</u> f) all exploration/production licences to be in good standing as at 30 June 2023; and g) release of an announcement on the ASX that the Company has commenced drilling in the Upper Rhine Valley.	
Class AB	30 June 2027	The combination of the following two criteria: 1. <u>Business returns</u> (55% weighting) a) Successful ramp up to nameplate capacity for Phase One energy and lithium chemicals production, and achievement of corresponding revenue (30%); b) Obtain positive definitive feasibility study for Phase Two energy and lithium chemicals production, and achievement of corresponding revenue (15%); c) Obtain project financing for completion of Phase Two capital expenditure (10%). 2. <u>Sustainability returns</u> (15% weighting) a) Carbon neutral emission certification across all operations through each year in the four-year period commencing 30 June 2022 (7.5%); and b) Lowest quartile absolute GHG emissions (Scope 1, 2, 3) (7.5%).	209,200

Class	Expiry Date	Vesting criteria	Number of Performance Rights on issue
		3. <u>Total Shareholder Returns ("TSR")</u> (30% weighting) The TSR calculation is based on a combination of absolute TSR (Vulcan share price only) (10%) and relative (Peer Group) TSR (20%) over the four years from 1 July 2022 to 30 June 2026.	
Class AC	29 November 2025	One third vesting 12 months from the date of the 29 November 2022 Annual General Meeting (" AGM "), one third vesting 24 months from AGM, one third vesting 36 months from AGM.	9,492
Class AD	22 June 2023	One third vesting 12 months from the date of the 29 May 2023 Annual General Meeting (" AGM "), one third vesting 24 months from AGM, one third vesting 36 months from AGM	25,234
Class AE	31 December 2025	The successful complete staffing of the drilling rigs at the time of setting up the same and during the drilling of the wells according to the drilling plan for the year 2024 on or before December 31, 2024.	41,357
Class EIP	Various	Various milestones relating to personal and group performance.	2,290,830
Class EIP	Various	Various milestones relating to personal and group performance.	618,596
Balance as at 17 December 2024			3,304,506

The vast majority of the Performance Rights on issue have not yet vested. Assuming that all Performance Rights outstanding had been converted to Shares as of the date of this Prospectus (i.e. that all performance rights milestones are satisfied and that conversion occurs prior to the completion of and not considering the Institutional Offer) and further assuming that none of the existing shareholders would be entitled under any Performance Right, based on a total of 188,188,571 Shares outstanding, each shareholder's percentage ownership in the Company's share capital and voting rights would decrease by approximately 1.75%.

11.3.2 Performance Shares

Performance Shares are issued shares in the capital of the Company. Each Performance Share entitles the holder to elect to receive one Share for nil consideration by notifying the Company of that election if the applicable vesting conditions for those Performance Shares are met before their expiry date. Performance Shares do not confer any voting rights or dividend rights, but holders of Performance Shares are entitled to receive notices of general meetings and financial reports and accounts of the Company that are circulated to holders of Shares. Holders of Performance Shares are also entitled to attend general meetings of Shareholders.

As of the date of this Prospectus, no Performance Shares are on issue.

11.4 General provisions on changes in the share capital

Under the Australian Corporations Act, the Company does not have an authorised share capital and there is generally no limit under the Australian Corporations Act or the Constitution on the power of the Directors to issue Shares or other securities. The Company does not have subscription rights or other rights of pre-emption/anti-dilution attaching to the Shares as a result of which shareholders of the Company would be entitled to participate in future capital issues. Other than in limited circumstances, there is also no Australian legal requirement to issue new shares at a certain minimum offer price. The primary protection for shareholders against dilution is the restrictions in the ASX Listing Rules on additional share issues. Subject to specified exceptions, the ASX Listing Rules restrict a company admitted to the official list of ASX such as the Company from issuing, or agreeing to issue, more than 15% of the company's total number of securities (calculated according to a prescribed equation) in any rolling 12-month period without obtaining shareholder approval. In addition, directors of Australian companies have statutory duties to (among other things) act in the best interests of the company, which the Board of Directors must have regard to when determining to undertake a capital raising and the issue price for such capital raising.

Subject to specified exceptions, the ASX Listing Rules restrict a company admitted to the official list of ASX such as the Company from issuing, or agreeing to issue, more than 15% of the company's total number of securities (calculated according to a prescribed equation) in any rolling 12-month period without obtaining shareholder approval.

Specified exceptions to the requirement to seek shareholder approval under the ASX Listing Rules include (among other things):

- pro rata issues made to existing shareholders;
- issues made to an underwriter of the shortfall under a pro rata issue, subject to certain requirements; and
- issues made under an employee incentive plan approved by shareholders in the preceding three years.

11.5 General provisions on changes in share rights

Under section 246B of the Australian Corporations Act, the Company may vary or cancel the rights attached to shares in a class of shares only if:

- where the Company's Constitution sets out a procedure for varying or cancelling such rights, that procedure is followed; or
- where the Company's Constitution does not set out a procedure for varying or cancelling such rights, the Company follows the procedure prescribed by the Australian Corporations Act.

Under the Company's Constitution, if at any time the share capital of the Company is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issues of the shares of that class), whether or not the Company is being wound up, may be varied or abrogated with the consent in writing of the holders of three quarters of the issued capital of that class, or if authorised by a special resolution passed at a separate meeting of the holders of the shares of that class.

11.6 General provisions on dividend payments and distributions out of capital

Under the Australian Corporations Act, a company must not pay a dividend unless:

- its assets exceed its liabilities immediately before the dividend is declared and the excess is sufficient for the payment of the dividend;
- the dividend is to be fair and reasonable to the company's shareholders as a whole; and

- the payment of the dividend does not materially prejudice the company's ability to pay its creditors.

Additionally, where a distribution is paid out of capital, the provisions of the Australian Corporations Act relating to reductions of capital must also be complied with.

11.7 General provisions on the liquidation of the Company

If the Company is wound up, the liquidator may, with the authority of a special resolution, divide among the shareholders in kind the whole or any part of the property of the Company, and may for that purpose set such value as the liquidator considers fair upon any property to be so divided, and may determine how the division is to be carried out as between the Shareholders or different classes of Shareholders.

11.8 Regulation of Australian takeovers

Subject to certain exceptions, the Australian Corporations Act prohibits the acquisition of a relevant interest in the voting shares of a company registered under the Australian Corporations Act that either is listed on a prescribed stock exchange (including ASX) or has more than 50 shareholders if, as a result of the acquisition, the voting power of the acquirer (or any other person) in the company would increase:

- from 20% or below to more than 20%; or
- from a starting point that is more than 20% but less than 90%,

(known as the "**20% Rule**").

A person's voting power for these purposes is equal to the aggregate relevant interest of the person and their associates in the voting shares of the company. The Shares are currently the only class of voting shares in the Company on issue.

Broadly, a person has a "relevant interest" in a security if they:

- are the holder of that security;
- have the power to dispose of, or control the exercise of a power to dispose of, that security;
- have the power to exercise, or control the exercise of, the right to vote in respect of that security;
- control or have voting power above 20% of a body corporate or management investment scheme that has a relevant interest in that security;
- grant an option, or have granted an option to, or by, a person with a relevant interest in the security, the exercise of which would give the first person a relevant interest in the security; or
- are given, or have been given, or give, or have given, an enforceable right in relation to the security, the enforcement of which would give the first person a relevant interest in the security (whether the right is enforceable presently or in the future and whether or not on the fulfilment of a condition).

These concepts are broad and, for example, the concepts of "power" and "control" include:

- power or control that is indirect;
- power or control that is, or can be, exercised as a result of, by means of or by the revocation or breach of a trust, agreement, practice or combination (whether or not enforceable); and
- power or control that is, or can be made, subject to restraint or restriction,

regardless of whether the power or control is express or implied, formal or informal, or exercisable alone or jointly with another person.

There are several exceptions which allow acquisitions that would otherwise be prohibited from taking place under the 20% Rule. These exceptions include (among other things):

- a) takeover bid: an acquisition under a formal takeover bid that complies with the requirements of the Australian Corporations Act;
- b) scheme of arrangement: an acquisition that results from a compromise or arrangement approved by a court under Part 5.1 of the Australian Corporations Act;
- c) shareholder approval: an acquisition that has been previously approved by shareholders at a general meeting of Shareholders (provided, among other things, that shareholders are provided with certain information prescribed under the Australian Corporations Act and the potential acquirer and its associates did not vote on the approval);
- d) 3% creep: an acquisition by a person where the person (or any other person) had voting power in the company of at least 19% throughout the six-months prior to the acquisition, and the acquisition does not result in any of those persons' voting power to increase by more than 3% over the voting power they had six months prior to the acquisition; and
- e) pro rata offers: an acquisition under a pro rata offer of new securities in which all securityholders in that class are offered the opportunity to participate on the same terms, where the securityholders have been provided with a reasonable opportunity to accept such offers (including an acquisition by an underwriter or sub-underwriter to that offer).

In addition, the Foreign Acquisitions and Takeovers Act 1975 (Cth) of Australia regulates the acquisition directly or indirectly by a "foreign person" of (among other things) securities in Australian companies. The definition of "foreign person", broadly, encapsulates any person or entity that is not an Australian resident, including any Australian company in which a "foreign person" has an interest of at least 20% or in which two or more "foreign persons" have an aggregate interest of at least 40%.

Generally, an acquisition by a foreign person that results in foreign ownership in an Australian company exceeding the applicable threshold will require notification to (and, usually, a confirmation of no objection from) the Australian treasurer.

In most cases, the applicable threshold will be met where a foreign person, together with its associates, directly or indirectly acquires an interest in (or increases its interest above) 20% of more of the voting power in an Australian business valued at more than A\$1,427 million (in the case of investors from certain countries that have an applicable free trade agreement with Australia) or A\$330 million (for investors from other countries). However, lower thresholds (both monetary threshold and interest threshold) may apply depending on the nature of the acquirer (for example, where the acquirer is a "foreign government investor") and the nature of the target (for example, where the target holds significant land interests or is a "national security business").

11.9 Takeover bids

One of the main methods for acquiring control of an Australian company that is listed on a prescribed stock exchange (including ASX) or has more than 50 shareholders is by way of a takeover bid under Chapter 6 of the Australian Corporations Act. A takeover bid involves a potential acquirer making an offer to all securityholders of a target company (or unitholders of a trust) to acquire their securities (or units) on the same terms.

There are two types of takeover bids:

- an off-market bid (which may offer cash or other consideration, may be subject to conditions, and may be for 100% of the target securities or a specified proportion of each target securityholder's securities); and
- a market bid (which must be an unconditional cash offer).

In an off-market bid, the bidder must make its offers to target securityholders in writing in a document called a bidder's statement, which must be prepared in accordance with the requirements of the Australian Corporations Act. The target company must respond to that bidder's statement by preparing and dispatching to its securityholders (in the class of securities subject to the takeover bid) a document called a target's statement, which contains all the information that holders of bid

class securities and their professional advisers would reasonably require to make an informed assessment whether to accept the offer under the bid (subject to limited exceptions), as well as the target directors' recommendation as to whether securityholders should accept or not accept the takeover bid. In contrast, a market bid (often called an on-market bid) involves the bidder appointing a broker to stand in the ASX market and make offers to acquire target securities at the specified bid price, with acceptances being effected by the execution of on-market trades rather than off-market acceptances. Despite the offers being made on-market, a bidder's statement and target's statement still need to be prepared in a market bid.

11.10 Scheme of Arrangement

In addition to takeover bids, the other main method of acquiring control of an Australian company that is listed on a prescribed stock exchange (including ASX) or has more than 50 shareholders is by way of a scheme of arrangement between the company and its members under Part 5.1 of the Australian Corporations Act. A scheme of arrangement is a statutory procedure that allows a company to reorganise its capital structure to give effect to a proposal, such as transferring all of the voting shares in a company to a proposed acquirer, or cancelling all of the voting shares in a company not already held by the proposed acquirer.

Unlike a takeover bid, a scheme of arrangement is a legal process involving the target company and its shareholders consenting to a proposal that will bind all shareholders. For a scheme of arrangement to bind all shareholders, the following majority approvals must be obtained from shareholders:

- a) headcount test – a simple majority in number (greater than 50%) of the shareholders who vote; and
- b) voted shares test – at least 75% of the total number of votes cast.
- c) The scheme of arrangement must also be approved by an Australian court. In determining whether to approve a scheme of arrangement, the Australian court will need to be satisfied that:
 - d) the requirements of the Australian Corporations Act have been met (including that the majority approvals for shareholders have been achieved);
 - e) the majority of shareholders voting in favour of the schemes were acting in good faith and not for an illegal or illegitimate purpose; and
 - f) the proposal was sufficiently fair and reasonable such that an intelligent and honest shareholder might approve it.

The advantage of a scheme of arrangement compared to a takeover bid is that a change of control of the target company can be effected by achieving the above shareholder majority approvals, and does not require the unanimous agreement of all shareholders (or approval of such number of shareholders so as to enable the bidder to proceed with follow-on compulsory acquisition – see section "11.11 Squeeze-out of minority shareholders" below).

Compared to a takeover bid, a bidder has a more limited role in a scheme of arrangement, as the process is controlled by the target company whose co-operation is required to put forward the bidder's proposal before a meeting of the target company's shareholders. For these reasons, the bidder's role in a scheme of arrangement is generally confined to:

- a) making the proposal to acquire all the shares in the target company by scheme of arrangement;
- b) negotiating and entering into a scheme implementation agreement (being the document that sets out the obligations of the target and bidder to co-operate to give effect to implementation of the scheme of arrangement); and
- c) providing input into the target company's explanatory statement to shareholders (described below).

Once the terms of the scheme implementation agreement are agreed, the target company will then draft a notice of meeting and explanatory statement to shareholders, commonly referred to as a

"Scheme Booklet", explaining the effect of the proposed scheme of arrangement and containing all information known to the target company's directors that is material to the making of a decision by a shareholder as to whether or not to agree to the scheme of arrangement. The Scheme Booklet is then lodged with ASIC, being the Australian national regulator of corporations, for review. Where the consideration offered to the target company's shareholders comprises (in whole or in part) securities in the bidder or another entity, the Scheme Booklet must also contain all the information that investors and their professional advisers would reasonably require to make an informed assessment of the rights and liabilities attaching to those securities, and the assets and liabilities, financial position and performance, profits and losses and prospects of the body that is to issue the securities (but only to the extent to which (i) the target company's directors know or ought reasonably know that information, and (ii) it is reasonable for investors and their professional advisers to expect to find the information in the Scheme Booklet).

Following ASIC's review of the scheme booklet, the target company will apply to an Australian court for an order to convene a meeting of its shareholders to consider and vote on the proposed scheme of arrangement. If approval of the relevant Australian court is received, the Scheme Booklet is despatched to the target company's shareholders and a shareholders' meeting is convened to consider the proposed scheme of arrangement.

If the target company's shareholders approve the scheme of arrangement at the meeting of shareholders, the target company will then notify ASIC and apply for orders at a second hearing (again, before an Australian court) seeking approval of the scheme of arrangement. The Australian Court then has the discretion to either approve or decline the scheme of arrangement, but will generally not substitute its assessment of the merits of the scheme of arrangement for that of the majority shareholders who voted in favour of it. Shareholders of the target company may appear at the second hearing and petition the Australian court not to approve the proposed scheme of arrangement if they believe the scheme prejudices their interests or has not met the legal requirements. ASIC may also appear at either the first or second court hearing if it objects to a proposed scheme.

Following approval by the Australian court at the second court hearing, the target company will lodge the Court orders with ASIC, at which time the scheme of arrangement will become legally binding on all shareholders of the target company, including those who voted against the scheme or omitted to vote. The scheme of arrangement will be implemented shortly thereafter.

11.11 Squeeze-out of minority shareholders

The Australian Corporations Act provides that a person who has made a takeover bid which results in, at the end of the offer period, that person (and its associates) having a relevant interest in at least 90% of the issued shares and having acquired 75% (by number) of the shares that the person offered to acquire under the bid, may compulsorily acquire any remaining shares it does not hold at the same price offered under the bid, within one month after the end of the offer period.

The Australian Corporations Act also permits a minority shareholder to require an offeror to acquire the minority shareholders' shares if the offeror has a relevant interest in at least 90% (by number) of the issued shares at the end of the takeover bid.

In addition, whether or not a takeover bid has been made, a person who lawfully acquires a relevant interest in at least 90% of the issued shares of a company is able to acquire the remaining shares in that company for fair value (as determined by an independent expert), provided that the acquirer lodges a compulsory acquisition notice within six months after obtaining a relevant interest in at least 90% of the issue shares.

11.12 Notification and reporting requirements for shareholdings

11.12.1 Australia

As the Company is admitted to the official list of ASX, under the Australian Corporations Act, a shareholder who begins or ceases to have a substantial holding in the Company, or who has a substantial holding in the Company and there is a movement by at least 1% in their holding, must give a notice to the Company and ASX within the prescribed period (generally, within two business days).

A person has a substantial holding in the Company if:

- that person and that person's associates have a relevant interest in 5% or more of the voting shares in the Company; or
- that person has made a takeover bid for voting shares in the Company.

A failure to give such a notice is an offence (which can attract financial penalties and, in the case of individuals, imprisonment), but does not preclude the shareholder from exercising the rights attaching to the relevant shares.

11.12.2 Germany

Germany qualifies as the home member state of the Company pursuant to Section 2, para. 13, no. 3 of the German Securities Trading Act (*Wertpapierhandelsgesetz*). Holders of the Shares and derivatives or other financial instruments linked to the Shares may be subject to notification obligations pursuant to the German Securities Trading Act (*Wertpapierhandelsgesetz*) and the German Securities Trading Reporting Ordinance (*Wertpapierhandelsanzeigeverordnung*). The following description summarises these obligations. The Company's shareholders are advised to consult with their own legal advisers to determine whether the notification obligations apply to them.

Section 33 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) provides that, at the time the shares of a company whose country of origin is Germany are listed for the first time, any shareholder who holds 3% or more of the voting rights must notify the respective issuer and BaFin without undue delay (*unverzüglich*), but no later than within four trading days after the date of the listing and must also disclose the amount of its current share of the voting rights. Moreover, any shareholder who, through acquisition, sale or otherwise, reaches, exceeds or falls below 3%, 5%, 10%, 15%, 20%, 25%, 30%, 50% or 75% of the voting rights in a listed company whose country of origin is Germany must notify the respective issuer and BaFin without undue delay (*unverzüglich*), but no later than within four trading days after the event, of having reached, exceeded or fallen below the respective threshold and must also disclose the amount of its current share of the voting rights. The prescribed time limit commences at the time when the shareholder required to give the notification has actual knowledge or should have had knowledge under the circumstances that its share of voting rights reached, exceeded or fell below the stated thresholds. It is assumed that the shareholder required to give the notification has gained knowledge about the shareholding two trading days after reaching, exceeding or falling below the aforementioned thresholds. If the shareholder's percentage of voting rights has reached, exceeded or fallen below the thresholds due to a change of the total number of voting rights in the company, the notification period begins at the point when the shareholder required to give the notification learns that the threshold is triggered, but no later than the publication of the change of the total number of voting rights by the issuer. The German Securities Trading Act (*Wertpapierhandelsgesetz*) defines "holding" as the existence of an unconditional claim related to a transfer of shares without an undue delay or a respective obligation. Section 34 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) contains various rules which are supposed to ensure that the shareholding is attributed to the person who actually controls the voting rights relating to the shares. For example, shares held by a third person will be attributed to another person if that other person exercises control over the person holding the shares. This also applies to shares which are held by a third person on behalf of another person or a person controlled by such other person as well as voting rights which the person can exercise free of instructions as a proxy.

Corresponding disclosure obligations towards the issuer and BaFin apply to reaching, exceeding, or falling below the thresholds mentioned above, except for the threshold of 3%, when the relevant shareholder directly or indirectly holds instruments (i) which either, on maturity, give their holder an unconditional right to acquire already issued shares carrying voting rights in the issuer or the discretion as to the right to acquire such shares in the issuer or (ii) which are referenced to already issued shares of the issuer carrying voting rights and have similar economic effect to the instruments mentioned under (i), irrespective of whether or not they confer a right to a physical settlement (section 38 of the German Securities Trading Act (*Wertpapierhandelsgesetz*)). In particular such instruments comprise transferable securities, options, futures, swaps, forward rate agreements and contracts for differences. The number of voting rights relevant for the notification requirement is generally calculated by reference to the full nominal amount of shares underlying the instrument, except where the instrument provides exclusively for a cash settlement.

Moreover, pursuant to section 39 of the German Securities Trading Act (*Wertpapierhandelsgesetz*), the notification obligation applies if the sum of the voting rights in one issuer, which are to be taken into account pursuant to section 33, para. 1, sentence 1 or para. 2 of the German Securities Trading

Act (*Wertpapierhandelsgesetz*) with respect to holdings of shares and section 38, para. 1, sentence 1 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) with respect to holdings of instruments, reaches, exceeds or falls below the thresholds mentioned above, except for the threshold of 3%.

The notification may be made either in German or English and shall be submitted through BaFin's Reporting and Publishing Platform (*MVP-Portal*). As a domestic issuer within the meaning of the German Securities Trading Act (*Wertpapierhandelsgesetz*), the Company must publish this notification without undue delay, but no later than three trading days after receipt of the notification in various media distributed across the entire EEA in accordance with section 16 in conjunction with section 3a of the German Securities Trading Reporting Ordinance (*Wertpapierhandelsanzeigeverordnung*) and submit the publication to BaFin. The issuer must also transmit the notification to the company register (*Unternehmensregister*) maintained electronically by the German Federal Ministry of Justice within the meaning of section 8b of the German Commercial Code (*Handelsgesetzbuch*) for storage without undue delay, but not prior to the publication.

In case of non-compliance with the disclosure obligation for example failing to file a notice or providing false information, the shareholder is precluded from exercising the rights relating to those shares (including voting rights and the right to receive dividends) for the duration of the failure in accordance with the provisions of section 44 of the German Securities Trading Act (*Wertpapierhandelsgesetz*). If the disclosure requirements are violated in a wilful or grossly negligent manner, any rights relating to the shares will be suspended for a six-month period. Furthermore, a fine can be imposed in the case of non-compliance with the disclosure requirements, and BaFin will publish its measures and sanctions taken on its website.

Moreover, pursuant to section 43 of the German Securities Trading Act (*Wertpapierhandelsgesetz*), a shareholder reaching or exceeding 10% or more of the voting rights relating to shares of an issuer must inform the issuer of the objective being pursued through the acquisition of voting rights and the sources of the funds used for the purchase, in each case within 20 trading days from such shareholder acquiring the relevant percentage of the shares. In particular, the shareholder must disclose whether it intends to (i) pursue any strategic objectives with respect to the company (as opposed to profits from trading in the shares), (ii) acquire further voting rights within the following twelve months, (iii) exert any influence or control over the company's management or supervisory board and (iv) make any significant changes to the company's capital structure, especially with respect to debt-to-equity ratio and dividend policy. The Company's articles of association have not made use of the option to release shareholders from this disclosure obligation. If the above objectives change, such change needs to be disclosed to the issuer within 20 trading days of such change.

11.13 Managers' / Directors' transactions

11.13.1 Australia

As an ASX-listed company, the Company must announce to ASX:

- the notifiable interests of a director newly appointed to the Company, within five business days of the appointment of that director;
- any change in the notifiable interests of a director of the Company, within five business days of the date of that change; and
- the notifiable interests of a director who ceases to be a director of the Company, within five business days of that person ceasing to be a director of the Company.

Notifiable interests of a director include the director's relevant interest in the Company's Shares and any interests in contracts to which the director is a party or under which the director is entitled to a benefit, and that confer a right to (among other things) call for or deliver Shares in the Company or a related body corporate.

The Company has a securities trading policy ("**Securities Trading Policy**") which sets out the Company's policy on the sale and purchase of the Company's securities by staff and key management personnel. The Company's key management personnel comprise its directors, executives and those employees directly reporting to the Managing Director.

Under the Securities Trading Policy:

- permanent insiders must obtain the prior written approval of the Managing Director before dealing in the Company's securities (other than any dealing by the Chair, which requires the prior written approval of the Board of Directors and dealing by the Managing Director which requires the written approval of the Chair); and
- other than in exceptional circumstances, key management personnel must not deal in securities of the Company during the following periods:
 - o 30 days prior to, and 48 hours after, the release of the Company's annual financial report;
 - o 30 days prior to, and 48 hours after, the release of the Company's consolidated interim report; and
 - o 30 days prior to, and 48 hours after, the release of the Company's quarterly reports (if applicable).

In addition, under the Australian Corporations Act, any person who possesses price sensitive information relating to a company or its securities is prohibited (subject to limited exceptions) from acquiring, disposing of or applying for those securities or procuring others do so, and from communicating the information to third parties where the person knows or ought reasonably know that the person to whom the information is communicated would or would be likely to acquire, dispose of or apply for those securities, or procure others do so.

11.13.2 Germany

The Company is subject to the provisions of the Market Abuse Regulation on disclosure of transactions by persons discharging managerial responsibilities within the Company (the "**Managers**") and persons closely associated with them. According to the rules set out in the Market Abuse Regulation, the Managers are obliged to notify the Company and BaFin within three working days regarding any of their transactions in Shares or financial instruments linked to them, particularly derivatives. This obligation also applies to persons closely associated with a Manager. The Company is obliged to promptly, and in no event later than two business days after the transaction, publish the information received in accordance with the foregoing and to simultaneously notify BaFin of the publication. Notification is not required if the sum of all transactions involving a Manager or persons closely associated with him or her is less than EUR 20,000 in a given calendar year.

A Manager is any member of the Company's administrative, management or supervisory body or another senior executive who has regular access to inside information relating directly or indirectly to the Company and power to take managerial decisions affecting the future developments and business prospects of the Company. Persons closely associated with the Manager are (i) spouses and partners considered to be equivalent to a spouse in accordance with national law, (ii) dependent children, in accordance with national law, (iii) other relatives who have shared the same household as the Manager for at least one year on the date of the transaction concerned and (iv) legal persons, trusts or partnerships, the managerial responsibilities of which are discharged by the Manager or any of the aforementioned parties, which are directly or indirectly controlled by a Manager or such a party, which are set up for the benefit of a Manager or such a party or whose economic interests are substantially equivalent to those of a Manager or such a party. Non-compliance with the notification requirements may result in a fine.

Furthermore, the Market Abuse Regulation imposes a closed period of 30 calendar days prior to the announcement of interim financial statements or annual financial statements which the Company is obliged to publish, during which a Manager shall not conduct any transactions in Shares or financial instruments linked to them, particularly derivatives, or act on behalf of a third party in relation to such transactions.

11.14 Short selling regulation (ban on naked short selling)

11.14.1 Australia

Under section 1020B of the Australian Corporations Act, the short selling of securities is only permitted under certain conditions. In particular, "naked" short selling of securities (where a person

sells a security - including shares, among other financial products - in circumstances where, at the time of sale, the seller does not have a presently exercisable and unconditional right to vest the share in the buyer) is prohibited in Australia.

Further information in relation to short selling in Australia is set out in ASIC RG 196 *Short selling*, which is available on ASIC's website at <https://asic.gov.au>.

11.14.2 Germany

Pursuant to Regulation (EU) no. 236/2012 of the European Parliament and of the Council of 14 March 2012 on short selling and certain aspects of credit default swaps (the "**Short Selling Regulation**"), the European Commission's delegated regulation for the purposes of detailing the Short Selling Regulation, and the German EU Short Selling Implementation Act (*EU-Leerverkaufs-Ausführungsgesetz*) of 15 November 2012, the short-selling of the shares is only permitted under certain conditions. In addition, under the provisions of the Short Selling Regulation, significant net-short selling positions in the shares must be reported to BaFin and published if they exceed a specific percentage. The reporting and publication process is detailed in the German Regulation on Net-Short Positions (*Netto-Leerverkaufspositionsverordnung*) of 17 December 2012. The net short-selling positions are calculated by offsetting the short positions of a natural person or legal entity in the shares with its long positions in such shares. The details are regulated in the Short Selling Regulation and the other regulations the European Commission has enacted on short-selling. In certain situations described in the Short Selling Regulation, BaFin may restrict short-selling and comparable transactions.

12. INFORMATION ON THE GOVERNING BODIES OF THE COMPANY

12.1 Overview

As an Australian public company limited by shares, the Company's governing bodies are the Board of Directors and the general meeting of Shareholders. The responsibilities and powers of these government bodies are determined predominantly by the Australian Corporations Act and the Company's Constitution.

12.2 Board of Directors

12.2.1 General information

The role of the Company's Board of Directors is to provide overall strategic guidance and effective oversight of management.

Subject to any specific requirements under the Australian Corporations Act, the ASX Listing Rules or the Company's Constitution, the day to day business of the Company is also managed by the Board of Directors, who may exercise all of the powers of the Company except for those which require approval of the general meeting of shareholders (see section "12.3.1.5 *Passing resolutions at a general meeting of Shareholders*"). Specific responsibilities ascribed to the Company's Board of Directors are set out in the board charter (see section "12.2.2 *Board Charter*"). The Company's Board of Directors is permitted under the Company's Constitution to delegate any of their powers to one or more persons or committees.

Under Australian law, the Directors of the Company are subject to certain duties, including to act in good faith in the interests of the company, to act for a proper purpose, not to fetter their discretion, to exercise care, skill and diligence, to avoid conflicts of interest, not to use their position to their advantage, and not to misappropriate company property. Pursuant to section 14.1 of the Company's Constitution, the Company's Board of Directors is to comprise of not less than three and not more than nine Directors (excluding any alternate Directors). The quorum for a meeting of the Board of Directors is two Directors.

Subject to the Company's Constitution, the Company may elect a person as a Director by resolution passed at a general meeting of Shareholders. A Director elected at a general meeting of Shareholders is taken to have been elected with effect immediately after the end of that meeting, unless the resolution by which the Director was appointed or elected specifies a different time.

At the Company's annual general meeting of Shareholders each year, one third of the Directors (other than the Managing Director) or, if their number is not a multiple of three, then the number nearest one-third, must retire from office (and each such Director who retires is eligible to seek re-election at that annual general meeting).

In addition, no Director (except the Managing Director) may hold office without re-election past the longer of (i) the third annual general meeting of Shareholders following their appointment or election, and (ii) three years.

The Directors to retire at each annual general meeting of Shareholders are those who have been in office the longest since their last election. Where persons have become Directors on the same day, unless otherwise agreed amongst themselves, the Directors to retire by rotation will be determined by drawing lots.

The Directors may also at any time appoint a person to be a Director, either to fill a casual vacancy or as an addition to the existing Directors. Any Director so appointed holds office only until the next following annual general meeting of Shareholders and is then eligible for re-election (but will not be taken into account in determining the Directors who are to retire by rotation (if any) at that meeting).

12.2.2 Board Charter

The Company has established a board charter ("**Board Charter**") which sets out:

- a) the respective roles and responsibilities of the Board of Directors and management; and
- b) those matters that are expressly reserved to the Board of Directors and those delegated to management.

Under the Board Charter:

- a) responsibility for the day-to-day operations and administration of the Company is delegated to the Company's Managing Director;
- b) specific limits on the authority delegated to the Chief Executive Officer/Managing Director and the team of executives as appointed by the Company must be set out in the delegated authorities approved by the Board of Directors; and
- c) the role of management is to support the Managing Director and implement the running of the general operations and financial business of the Company, including instilling and reinforcing the Company's values, in accordance with the delegated authority of the Board of Directors.

Specific responsibilities reserved for the Board of Directors under the Board Charter include:

- a) driving the strategic direction of the Company and defining the Company's purpose, ensuring appropriate resources are available to meet objectives and monitoring management's performance;
- b) approving the Company's statement of values and Code of Conduct to ensure the desired culture within the Company is maintained and monitoring the implementation of such values and culture at all times;
- c) ensuring that an appropriate framework exists for relevant information to be reported by management to the Board of Directors;
- d) when required, challenging management and holding it to account;
- e) appointment and replacement of the Managing Director, other senior executives and the Company Secretary, and the determination of the terms and conditions of their employment (including remuneration and termination);
- f) approving the Company's remuneration framework and ensuring it is aligned with the Company's purpose, values, strategic objectives and risk appetite;
- g) monitoring the timeliness and effectiveness of reporting to Shareholders;
- h) reviewing and ratifying systems of audit, risk management (for both financial and non-financial risk) and internal compliance and control, codes of conduct and legal compliance to minimise the possibility of the Company operating beyond acceptable risk parameters;
- i) approving and monitoring the progress of major capital expenditure, capital management and significant acquisitions and divestitures;
- j) approving and monitoring the budget and the adequacy and integrity of financial and other reporting such that the financial performance of the Company has sufficient clarity to be actively monitored;
- k) approving the annual, half yearly and quarterly accounts;
- l) approving significant changes to the organisational structure;
- m) approving decisions affecting the Company's capital, including determining the Company's dividend policy and declaring dividends;
- n) recommending to Shareholders the appointment of the external auditor as and when their appointment or re-appointment is required to be approved by them (in accordance with the ASX Listing Rules if applicable);
- o) ensuring a high standard of corporate governance practice and regulatory compliance and promoting ethical and responsible decision making; and

- p) procuring appropriate professional development opportunities for Directors to develop and maintain the skills and knowledge needed to perform their role as Directors effectively and to deal with new and emerging business and governance issues.

12.2.3 Members of the Board of Directors

As of the date of this Prospectus, the Company's Board of Directors consists of the following members in Table 25.

Table 25: Board of Directors

Name and role	Born	Director since/from	Last elected / appointed	End of current term⁽¹⁾
Dr Francis Wedin <i>Executive Chair</i>	12 March 1986	4 September 2019	24 May 2024	At the 2027 annual general meeting of the Company
Gavin Rezos <i>Non-Executive Deputy Chair</i>	13 April 1961	4 September 2019	29 May 2023	At the 2026 annual general meeting of the Company ⁽³⁾
Cris Moreno <i>Managing Director and CEO</i>	13 January 1980	1 July 2023	1 July 2023	Not required to retire by rotation
Dr Heidi Grön <i>Non-Executive Director</i>	16 May 1973	25 March 2021	29 May 2023	At the 2026 annual general meeting of the Company ⁽²⁾
Josephine Bush <i>Non-Executive Director</i>	28 August 1969	16 April 2021	24 May 2024	At the 2027 annual general meeting of the Company
Ranya Alkadamani <i>Non-Executive Director</i>	22 February 1982	29 April 2020	24 May 2024	At the 2027 annual general meeting of the Company ⁽³⁾
Dr Günter Hilken <i>Non-Executive Director</i>	11 September 1954	23 March 2022	29 November 2022	At the 2025 annual general meeting of the Company
Angus Barker <i>Non-Executive Director⁽⁴⁾</i>	24 October 1968	13 September 2024	13 September 2024	At the 2025 annual general meeting of the Company

⁽¹⁾ Approximately one third of directors (other than the Managing Director) are required to retire from office at the Company's annual general meeting, but are eligible for re-election, each year. This equates to three Directors each year based on the number of Directors currently holding office.

⁽²⁾ Whilst Gavin Rezos and Dr Heidi Grön were last elected as Directors on the same day, given it has been announced that Mr Rezos (and Ms Alkadamani) will retire from the Board at the end of 2024, it is anticipated that Dr Grön and Dr Hilken will retire at the 2025 annual general meeting of the Company. Refer to section "12.2.1 General information" for further details.

⁽³⁾ As announced on 13 September 2024, it is intended that both Mr Rezos and Ms Alkadamani will retire from the Board by the end of 2024.

⁽⁴⁾ As from 1 January 2025 Deputy Chair and Lead Independent Non-Executive Director.

⁽⁵⁾ As announced on 27 November 2024, Ms Felicity Gooding (born 18 October 1980) will be appointed as an Executive Director, in addition to her role as Group CFO, as of 1 January 2025.

Dr Francis Wedin (Executive Chair):

Dr Wedin is a battery raw materials industry executive, with a diverse career spanning four continents and multiple commodities. Dr Wedin founded the Project in Germany, and was instrumental in driving Vulcan Group's successful growth as CEO from 2019 to 2023. Dr Wedin was previously Executive Director of successful ASX-listed Exore Resources Ltd (ASX:ERX). During this time, he discovered and defined two new JORC lithium resources, on two continents, in under a year. This included Lynas Find, which was bought by Pilbara Minerals to become part of its large Pilgangoora Lithium Project, now in production (ASX:PLS). Dr Wedin has a PhD and BSc (Hons) in geology and mineral exploration, and an MBA in renewable energy. He is a Fellow of the Geological Society, London, and a member of the Australasian Institute of Mining and Metallurgy.

During the past five years, Dr Wedin has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Director of Magni Associates Pty Ltd, Perth, Australia
- Director of Wedin Pty Ltd, Perth, Australia
- Director of VTI Resources Pty Ltd, Perth, Australia

Discontinued mandates:

- Executive Technical Director of Exore Resources Limited, Subiaco, Australia (2015-2019)

Dr Wedin may be contacted at the Company's business address.

Gavin Rezos (Non-Executive Deputy Chair):

Mr Rezos has many years of Australian and international corporate, project finance and investment banking experience and is both a former Head of Legal and Compliance across multiple countries for the HSBC Group and an investment banking Director of HSBC Group with regional roles during his career based in London, Sydney and Dubai. Mr Rezos has held chair, board and CEO positions of companies in the materials, technology and resources sector in Australia, the United Kingdom, the United States and Singapore and was formerly a non-executive director of Iluka Resources and of Rowing Australia, the peak Olympics sports body for rowing in Australia. He is a principal of Viaticus Capital.

During the past five years, Mr Rezos has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Non-Executive Chair of Resource & Energy Group Limited, Sydney, Australia
- Non-Executive Chair of Kuniko Limited, Perth, Australia
- Director and company secretary of Floreant Ambo Pty Ltd, Kensington, Australia
- Director of Viaticus Capital Pty Ltd, Kensington, Australia
- Director of Aymon Pacific Pty Ltd, Kensington, Australia
- Director of Mirimar Property Partners Pty Ltd, Midland, Australia

Discontinued mandates:

- Executive and non-executive Chair of Alexium International Group Limited, Melbourne, Australia (2010-2018)
- Director and company secretary of Ridgeline Asset Pty Ltd., Joondalup, Australia

Mr Rezos may be contacted at the Company's business address.

As announced on 13 September 2024, Mr Rezos will retire from the Board as of 31 December 2024.

Cris Moreno (Managing Director/CEO):

Mr Moreno has over 20 years' global experience in successfully delivering major projects, including in the lithium chemicals, cathode, and LNG sectors. In the LNG sector, he held leadership roles with Santos, Woodside, and Shell, including working on the Browse, Gorgon, and Prelude LNG projects. Prior to joining Vulcan Group, Mr Moreno worked in the lithium chemicals and battery cathode sector in Europe, as Senior Director Programs for Northvolt's Cathode Active Material (CAM) business unit, and as Founding Executive & Vice President of Engineering and Development for Aurora Lithium,

Northvolt's lithium hydroxide refinery in Europe. Mr Moreno has successfully been part of, and led, green start-up companies, taking them from pilot scale into commercial production.

During the past five years, Mr Moreno has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- n/a

Discontinued mandates:

- Senior Director of Northvolt AB, Stockholm, Sweden (2020-2022)
- Vice President of Aurora Lithium SA, a joint venture between Galp Energia SGPS, S.A. and Northvolt AB (2021-2022)
- Director of Modular Brewing Limited, Leederville, Australia (2020-2021).

Mr. Moreno may be contacted at the Company's business address.

Dr Heidi Grön (Non-Executive Director):

Dr Grön is a chemical engineer with more than 20 years' experience in the chemicals industry. Since 2007, Dr Grön has been a senior executive with Evonik, a specialty chemicals company. At Evonik, Dr Grön is currently responsible for Production, Technology, Asset Digitalisation and for Global Product Stewardship.

During the past five years, Ms Grön has not been a member of the administrative, management or supervisory bodies or partner of any companies or partnerships.

Dr Grön may be contacted at the Company's business address.

Josephine Bush (Non-Executive Director):

Ms Bush is a qualified solicitor, and chartered tax adviser, as well as earning the CFA ESG investing qualification and a sustainable finance certification. She has an MA in Law from Cambridge University. Ms Bush was a senior partner at EY for 14 years specialising in the renewable energy sector. She built and led the UK and Ireland Renewables Tax Practice, led on market-leading transactions such as structuring for the initial public offerings of several environmental yieldcos, and developed latterly the EY global renewables business plan. She was a member of the Ernst & Young Power and Utilities Board and UK&I Governance Board.

During the past five years, Ms Bush has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Non-executive director of Next energy Solar Fund plc
- Director of JRB Consulting Ltd, Bristol, United Kingdom
- Director of Sustineri Strategy Ltd, Maidenhead, United Kingdom
- Member of both the Investment Committee and Valuations Committee of Gresham House British Sustainable Infrastructure Fund, London, United Kingdom

Discontinued mandates:

- Non-executive director of Blackfinch Renewable Energy Investment Trust PLC, Brockworth, United Kingdom
- Non-executive director of Net Zero Now Ltd, London, United Kingdom

- Partner of Ernst & Young Global Limited, London, United Kingdom, (2005-2020)
- Non-executive director of Foresight Forestry Company PLC, London, United Kingdom
- Strategic Advisor of Sustainable Finance Guernsey, St. Peter Port, Guernsey

Ms Bush may be contacted at the Company's business address.

Ranya Alkadamani (Non-Executive Director):

Ms Alkadamani holds a Master of International Relations and International Communications and a Bachelor of Media from Macquarie University. Ms Alkadamani is currently Founder and CEO of Impact Group International, a strategic communications consultancy focused on advice to impact investors, philanthropists and innovative social impact programs. Ms Alkadamani works extensively in the impact investment space in Australia and internationally and has a strong network of clients and investors in the clean energy and renewables sector. She is also a Non-Executive Director of Australian Associated Press, Australia's only independent newswire. Ms Alkadamani was formerly Strategic Communications and External Affairs Director of Andrew Forrest's Munderoo Foundation and Munderoo Group, Press Secretary to former Australian Prime Minister, Kevin Rudd during his time as Australian Foreign Minister and a spokesperson for the Australian Department of Foreign Affairs and Trade.

During the past five years, Ms Alkadamani has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Chief Executive Officer of Impact Group International Pty Ltd, Castle Hill, Australia
- Director of Impact Group International Investments Pty Ltd, Castle Hill, Australia
- Non-Executive Director, Australian Associated Press, Paddington, Australia

Discontinued mandates:

- None

Ms Alkadamani may be contacted at the Company's business address.

As announced on 13 September 2024, Ms Alkadamani will retire from the Board as of 31 December 2024.

Dr Günter Hilken (Non-Executive Director):

Dr Hilken has over 35 years' experience in the German chemicals, renewables and infrastructure investment sectors and in leading industry advocacy associations, the German Government at the State and Federal level. Dr Hilken's experience and connections will help Vulcan Group ensure that geothermal energy becomes a foundation of Germany's supply of sustainable and secure renewable energy as Germany diversifies away from local carbon-based energy sources and Russian energy. Dr Hilken is also a member of the Board of the German Federation of Industrial Energy Consumers (VIK) as well as a former Director of Currenta and Member of the Supervisory Board of Currenta. He was previously CEO of Currenta for 9 years, held senior executive roles with Bayer in Germany, the US, Canada and Asia and was a member of the supervisory board of RWE Power AG.

During the past five years, Dr Hilken has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Member of the Board of the German Federation of Industrial Energy consumers (VIK)

Discontinued mandates:

- CEO of Currenta GmbH & Co OHG, Leverkusen, Germany

- Member of the Supervisory Board of Currenta
- Member of the supervisory board of RWE Power AG, Cologne, Germany

Dr Günter Hilken may be contacted at the Company's business address.

Angus Barker (Non-Executive Director)

Mr Barker has more than 30 years' professional experience with significant expertise in mergers and acquisitions, capital markets, and strategic advisory. He has held senior executive roles at global investment banks across Australia, the United Kingdom, and Asia, including with Bank of America Merrill Lynch, Deutsche Bank and UBS. He has advised public company boards and CEOs on strategic mergers and acquisitions, as well as complex capital markets transactions. Mr Barker's expertise spans the natural resources, financial services, infrastructure, and technology sectors.

He has served as a senior adviser to Australian government ministers in key economic portfolios, shaping policies related to superannuation, financial services, the digital economy, trade, export finance and foreign investment. With significant listed company Director experience, he is currently Chair of Australian Rare Earths Limited and a Non-Executive Director of WAM Capital Limited.

As from 1 January 2025, Mr Barker will serve as Deputy Chair and Lead Independent Non-Executive Director.

During the past five years, Mr Barker has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Non-Executive Director of WAM Capital Limited, Sydney, Australia
- Chairman at Australian Rare Earths Limited, Adelaide, Australia
- Director of Kapala2 Pty Ltd, Melbourne, Australia
- Director and Company Secretary of Trouville Pty Ltd, Melbourne, Australia
- Director of Merrifield22 Pty Ltd, Melbourne, Australia
- Director of Daubeuf Pty Ltd, Melbourne, Australia
- Director of Goldstor Pty Ltd, Adelaide, Australia

Discontinued mandates:

- Merrifield Consulting Pty Ltd, Melbourne, Australia

Mr Barker may be contacted at the Company's business address.

Felicity Gooding (Executive Director and Group CFO), to be appointed Executive Director as of 1 January 2025):

Ms Gooding is a Senior Finance executive and leader with over 20 years' experience in strategic and financial analysis, debt funding, corporate finance, mergers and acquisitions, management and financial accounting and governance within Australia, Singapore, London, and Washington D.C.

Her experience has been gained across multiple industries relevant to Vulcan including energy, mining, and infrastructure. Most recently Ms Gooding was CFO and Global Head of Commercial at Fortescue Future Industries, where she led the finance team, including the specialist project

financing team responsible for securing finance to enable financial investment decisions for green energy project.

During the past five years, Ms Gooding has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Director of Black Swan State Theatre Company Ltd, Perth, Australia
- Director of Charlie Reggie Pty Ltd, Perth, Australia
- Director and Secretary of Gooding Murphy Pty Ltd, Perth, Australia

Discontinued mandates:

• Director of Australia Sino One Hundred Year Agricultural and Food Safety, Perth, Australia	• Director of Fortescue Future Industries Pty Ltd, Perth, Australia	• Director of Tasmania H2 Pty Ltd, Perth, Australia
• Director of Australian Fortescue Future Holdings Pty Ltd, Perth, Australia	• Director of Fortescue Future Industries International Pty Ltd, Perth, Australia	• Director of WAE Technologies Pty Ltd, Perth, Australia
• Director of Australian Fortescue Future Industries Pty Ltd, Perth, Australia	• Director of Fortescue Future Industries Technologies Pty Ltd, Perth, Australia	• Director of Intergenerational Health Justice Fund Limited, Perth, Australia
• Director of Intergenerational Environment Justice Fund Limited, Perth, Australia	• Director of Fortescue Hydrogen Systems Australia Pty Ltd, Perth, Australia	• Director of Intergenerational Human Rights Justice Fund Limited, Perth, Australia
• Director of Intergenerational Health Justice Fund Limited, Perth, Australia	• Director of Fortescue One Pty Ltd, Perth, Australia	• Director of International Health Philanthropy Limited, Perth, Australia
• Director of Intergenerational Human Rights Justice Fund Limited, Perth, Australia	• Director of Gibson Island FFI Holdings Pty Ltd, Perth, Australia	• Director of MIH2 Pty Ltd, Perth, Australia
• Director and Secretary of Australian Sino One Hundred Year Agricultural and Food Safety Partnership Pty Ltd, Perth, Australia	• Director of Gibson Island H2 Pty Ltd, Perth, Australia	• Director and Secretary of Minderoo Capital Pty Ltd, Perth, Australia
• Director of Energy Resources Fortescue Future Industries Pty Ltd, Perth, Australia	• Director of Gibson Island NH3 Pty Ltd, Perth, Australia	• Director of Minderoo Fire and Flood Resilience Initiative Limited, Perth, Australia
• Director of First Sourcing and Logistics Pty Ltd, Perth, Australia	• Director of Gladstone H2 Pty Ltd, Perth, Australia	• Director of Minderoo Investments No 1 Pty Ltd, Perth, Australia
	• Director of Intergenerational Justice Fund Limited, Perth, Australia	• Director of Minderoo Investments No 2 Pty Ltd, Perth, Australia
	• Director of Pilbara Green Energy Company Pty Ltd, Perth, Australia	• Director of Minderoo Pictures Limited, Perth, Australia

- Director of Fortescue Capital Pty Ltd, Perth Australia
- Director of Poseidon Nickel Limited, Perth, Australia
- Director and Secretary of Net Zero Holdings Pty Ltd, Perth, Australia
- Director of RZ Net Pty Ltd, Perth, Australia

Ms Gooding may be contacted at the Company's business address.

12.2.4 Committees of the Board of Directors

Under the Company's Constitution, the Board of Directors can create committees in accordance with applicable laws.

As at the date of this Prospectus, the Company has a People and Performance Committee ("**People and Performance Committee**"), an Audit, Risk and ESG Committee ("**Audit, Risk and ESG Committee**") a Projects Oversight Committee ("**Projects Oversight Committee**") and a Nominations Committee ("**Nominations Committee**"). The composition of these committees will be newly determined by 31 December 2024 in line with the board evolution as announced on 13 September 2024.

12.2.4.1 People and Performance Committee

The role of the Company's People and Performance Committee is to provide assistance and recommendations to the Board of Directors in fulfilling its responsibilities in:

- overseeing the overall remuneration strategy of the Company and its specific application to the Managing Director and direct reports, and the remuneration of non-executive Directors;
- ensuring that the executive remuneration strategy demonstrates a clear relationship between key executive performance and remuneration;
- recommending to the Board of Directors the remuneration of executive Directors;
- ensuring incentives for non-executive directors do not conflict with their obligation to bring an independent judgement to matters before the Board of Directors;
- reviewing the Company's recruitment, retention and termination policies and procedures for senior management; and
- overseeing the diversity strategy, policy, and practices of the Company.

The People and Performance Committee will also make decisions on behalf of the Board of Directors where such authority has been expressly delegated.

The People and Performance Committee currently comprises:

- Gavin Rezos;
- Ranya Alkadamani (Chair); and
- Angus Barker.

As of 1 January 2025, following the departures of Ms Alkadamani and Mr Rezos, the People and Performance Committee will comprise:

- Angus Barker (Chair);
- Dr Günter Hilken; and
- Josephine Bush.

The Company has established a charter ("**People and Performance Committee Charter**") to set out:

- a) the specific responsibilities delegated by the Board of Directors to the People and Performance Committee; and
- b) the People and Performance Committee's objectives, authority, responsibilities, composition and operation.

Under the People and Performance Committee Charter, the People and Performance Committee is intended to meet at least three times in each financial year.

12.2.4.2 Audit, Risk and ESG Committee

The role of the Company's Audit, Risk and ESG Committee is to assist the Board of Directors in monitoring and reviewing any matters of significance affecting the Company's financial reporting, compliance and its impacts on environment, social and governance matters.

The Audit, Risk and ESG Committee currently comprises:

- a) Gavin Rezos;
- b) Dr Heidi Grön; and
- c) Josephine Bush (Chair).

As at 1 January 2025, following the departures of Mr Rezos, the Company's Audit, Risk and ESG Committee will comprise:

- a) Josephine Bush (Chair);
- b) Dr Günter Hilken; and
- c) Angus Barker.

The Company has established a charter ("**Audit, Risk and ESG Committee Charter**") to set the risk parameters and define the Audit, Risk and ESG Committee's function, composition, mode of operation, authority and responsibilities.

The Audit, Risk and ESG Committee Charter sets out (among other things) the specific responsibilities of the Audit, Risk and ESG Committee, including with respect to the internal audit function, relationship with external auditors and risk management.

Under the Audit, Risk and ESG Committee Charter, the Audit, Risk and ESG Committee is intended to meet at least twice in each financial year and additionally as circumstances may require for it to undertake its role effectively.

12.2.4.3 Projects Oversight Committee

The Company's Projects Oversight Committee provides more detailed advisory capacity and oversight of project-specific management, including the company's corporate governance framework and risk management including environmental, health and safety.

The Project Oversight Committee comprises:

- a) Dr Günter Hilken (Chair); and
- b) Dr Heidi Grön.

The Company has established a charter ("**Project Oversight Committee Charter**") which (among other things) sets out the specific responsibilities delegated by the Board to the Project Oversight Committee and its objectives, authority, responsibilities, composition and operation.

Under the Project Oversight Committee Charter, the Project Oversight Committee is intended to meet, at a minimum, approximately two weeks prior to the scheduled Company Board meetings.

12.2.4.4 Nominations Committee

The Company recently established a Nominations Committee, which assists the Board in monitoring and reviewing any matters of significance affecting the composition of the Board and the team of executives as appointed by the Company.

The Nominations Committee currently comprises:

- a) Ranya Alkadamani (Chair);
- b) Gavin Rezos;
- c) Josephine Bush; and
- d) Dr Heidi Grön or Dr Günter Hilken (one or more of whom will attend each meeting depending on availability).

As of 1 January 2025, following the departures of Ms Alkadamani and Mr Rezos, the Nominations Committee will comprise:

- a) Angus Barker (Chair);
- b) Josephine Bush; and
- c) Dr Heidi Grön or Dr Günter Hilken (one or more of whom will attend each meeting depending on availability).

The Company has established a charter ("**Nominations Committee Charter**") which (among other things) defines the Nominations Committee's function, composition, mode of operation, authority and responsibilities.

Under the Nominations Committee Charter, the Nominations Committee is intended to meet at least once in each financial year and additionally as circumstances require.

12.2.5 Remuneration of the members of the Board of Directors

The Directors are paid out of the funds of the Company, by way of remuneration for their services as Directors.

12.2.5.1 Resolution on the remuneration of the members of the Board of Directors

The total maximum remuneration of non-executive Directors is initially set by the Constitution and subsequent variation is by ordinary resolution of Shareholders in general meeting in accordance with the Constitution, the Australian Corporations Act and the ASX Listing Rules, as applicable. The total aggregate fixed sum will be divided between the Directors as the Directors determine from time to time or, failing agreement between them, in equal shares. The current total maximum remuneration for non-executive Directors has been set at A\$950,000 per annum, as approved by Shareholders at the Company's general meeting of Shareholders held on 29 November 2022.

The remuneration of an executive Director will be decided by the Board of Directors, without the affected executive Director participating in that decision-making process. Non-executive Directors may not be paid (as part or whole of their remuneration) a commission on, or a percentage of, profits, or a commission on, or a percentage of, operating revenue, and no executive Director may be paid (as whole or part of their remuneration) a commission on, or percentage of, operating revenue.

In addition, a Director may be paid fees or other amounts (subject to any necessary Shareholder approval) as the Directors determine where a Director (being called upon) performs special duties or otherwise performs services outside the scope of the ordinary duties of a Director.

Directors are also entitled to be paid reasonable travelling, accommodation and other expenses incurred by them respectively in or about the performance of their duties as Directors.

12.2.5.2 Remuneration Policy

Vulcan Group's board remuneration policy is to ensure the remuneration package properly reflects the person's duties and responsibilities and that remuneration is competitive in attracting, retaining and motivating people of the highest quality. The Company has established a People and Performance Committee (see section "12.2.4.1 People and Performance Committee"), the purpose of which is (among other things) to provide assistance and recommendations to the Board of Directors in fulfilling its responsibilities in overseeing the overall remuneration strategy of the Company and its specific application to the Managing Director and direct reports, and the remuneration of non-executive Directors.

The pay and reward framework for key management personnel may consist of the following areas:

- a) Fixed Remuneration – Base Salary
- b) Variable Remuneration – Annual Deferred Incentives
- c) Variable Remuneration – Long-Term Incentives

The combination of these would comprise the key management personnel's total remuneration.

12.2.5.2.1 Fixed Remuneration – Base Salary

The fixed remuneration for each key management personnel ("**KMP**"), including the members of the Board of Directors, is influenced by the nature and responsibilities of each role and knowledge, skills and experience required for each position. Fixed remuneration provides a base level of remuneration which is market competitive and comprises a base salary inclusive of statutory superannuation or equivalent in the place of employment. It is structured as a total employment cost package. Key management personnel are offered a competitive base salary that comprises the fixed component of pay and rewards. External remuneration consultants may provide analysis and advice to ensure base pay is set to reflect the market for a comparable role.

Base salary for KMP is reviewed annually to ensure the KMP's pay is competitive with the market. The pay of KMP is also reviewed on promotion. There is no guaranteed pay increase included in any KMP's contract.

12.2.5.2.2 Variable Remuneration – Annual Deferred Incentives (ADI)

Discretionary bonuses may be paid to KMP annually, subject to the requisite Board of Directors and shareholder approvals (where applicable). For the twelve months ending 30 June 2023, KMP's have been set milestone-based key performance indicators which, if achieved, will lead to vesting of performance rights. Subsequent to end of FY22, the Company amended its financial year end to 31 December to align with European standards. Since then, any future grant of performance rights has milestones aligned to a financial year ending 31 December rather than the financial year ending 30 June.

12.2.5.2.3 Variable Remuneration – Long-Term Incentives (LTI)

Vulcan Group has the ability to grant long term incentives to its officers, employees and contractors through the issue of Shares, Performance Rights and/or options under the Company's incentive plans.

The purpose of Vulcan Group's incentive plan is to:

- reward officers, employees and contractors of Vulcan Group;
- assist in the retention and motivation of employees of Vulcan Group;
- incentivise Vulcan Group employees to grow shareholder value (by providing them with an opportunity to receive an ownership interest in the Company); and
- provide Directors with the opportunity to sacrifice a percentage of their Director's fees for a given financial year in exchange for the provision of Shares.

As at the date of this Prospectus, 3,304,506 Performance Rights and no options are on issue, which have been granted in accordance with the Company's incentive plans as described further below.

2018 Incentive Plan

On 30 November 2018, shareholders of the Company approved a performance rights plan under which the Board of Directors was provided with the discretion (subject to any requisite shareholder approval) to grant Performance Rights to eligible participants (including KMP) ("**2018 Incentive Plan**"). The 2018 Incentive Plan applies to Performance Rights granted prior to 8 October 2021.

Performance Rights granted under the 2018 Incentive Plan only vest if the applicable performance hurdles determined by the Board of Directors from time to time are achieved.

A summary of the key terms of the 2018 Incentive Plan is contained in the Company's notice of 2018 annual general meeting dated 31 October 2018, a copy of such notice of meeting is available on the Company's website at <https://v-er.eu/information-for-investors/> or on ASX's website at www.asx.com.au.

2021 Incentive Plan

On 29 November 2021, the Company's shareholders adopted a new incentive awards plan, under which the Board of Directors may (in their discretion) invite full or part time employees and directors of, and contractors to, the Company or associated bodies corporate to apply for the issue of Shares, Performance Rights or options ("**2021 Incentive Plan**"). The 2021 Incentive Plan applies to Performance Rights granted prior to 29 November 2021.

As with the 2018 Incentive Plan, each Performance Right and option granted under the 2021 Incentive Plan will entitle the holder to subscribe for and be issued one Share upon the vesting and exercise of the security (unless the 2021 Incentive Plan or the specific invitation provides otherwise). Unless otherwise waived by the Board of Directors, Performance Rights and options will only vest and become exercisable if the applicable vesting conditions (if any) have been satisfied and the Board of Directors has notified the holder of that fact. Options awarded under the Incentive Plan may be subject to payment of an "option exercise price".

Subject to applicable laws, the quantum of Performance Rights and options to be granted to eligible participants, as well as the vesting conditions (if any) applying to Performance Rights and options, will be determined by the Board of Directors from time to time (including having regard to the participant's role and responsibilities in Vulcan Group).

Performance Rights and options granted under the 2021 Incentive Plan may lapse (and therefore will not be able to vest and become exercisable) in certain circumstances specified in the 2021 Incentive Plan, including (among other things) where:

- the vesting conditions are not met or become incapable of being met (and are not waived by the Board of Directors);
- the holder ceases to be an eligible participant (for example, by ceasing to be an employee of Vulcan Group) prior to the vesting of the Performance Right/option, unless the Board of Directors exercises its discretion to vest the Performance Right/option or allow the Performance Right/option to remain unvested; or
- the Board of Directors deems that the Performance Rights/options should lapse due to the fraud, dishonesty or other improper behaviour of the holder under the rules of the Incentive Plan.

A summary of the key terms of the 2021 Incentive Plan is contained in the Company's notice of 2021 annual general meeting dated 22 October 2021, a copy of such notice of meeting is available on the Company's website at <https://v-er.eu/announcements/> or on ASX's website at www.asx.com.au.

2024 Incentive Plan

On 24 May 2024, the Company's shareholders adopted a new incentive awards plan which is on materially the same terms as the 2021 Incentive Awards Plan ("**2024 Incentive Plan**").

A summary of the key terms of the 2024 Incentive Plan is contained in the Company's notice of 2024 annual general meeting dated 24 April 2024, a copy of such notice of meeting is available on the Company's website at <https://v-er.eu/announcements/> or on ASX's website at www.asx.com.au.

12.2.5.3 Remuneration of the members of the Board of Directors in the financial year ended 31 December 2023

The aggregate compensation made to Directors of the Company in FY23 (in EUR) is set out in Table 26 below.

Table 26: Director remuneration

	Short-term Employee Benefit			Post-Employment	Share Based Payments	Total
	Salary & Fees	Non-monetary benefits	Others	Superannuation	Shares & Rights	
	EUR	EUR	EUR	EUR	EUR	EUR
Non-Executive Directors						
Mr Gavin Rezos	129,639	-	-	-	82,239	211,878
Ms Ranya Alkadamani	49,643	-	-	5,345	21,867	76,855
Dr Heidi Grön	62,823 ⁽¹⁾	-	-	-	11,799	74,622
Ms Annie Liu ⁽³⁾	51,917	-	-	-	11,799	63,716
Ms Josephine Bush	54,989	-	-	-	11,799	66,788
Dr Günter Hilken	57,447 ⁽¹⁾	-	-	-	37,518	94,965
Mr Mark Skelton ⁽⁴⁾	58,245 ⁽²⁾	-	-	5,345	18,050	81,640
Mr Angus Barker ⁽⁵⁾	-	-	-	-	-	-
Executive Chair						
Dr Francis Wedin	361,690	-	-	38,899	88,710	489,299
Managing Director/CEO						
Cris Moreno ⁽⁶⁾	307,200	-	-	33,178	43,980	384,358
Executive Director and Group CFO						
Felicity Gooding ⁽⁷⁾	-	-	-	-	-	-
Total	1,133,593			82,767	327,761	1,544,121

⁽¹⁾ Fee included reimbursement of an additional A\$9,000 for participating in an additional three meetings for their roles as members of Projects Oversight Committee.

⁽²⁾ Fee included reimbursement of an additional A\$14,000 for participating in an additional three meetings for his role as Chair of Projects Oversight Committee.

⁽³⁾ Retired 13 September 2024.

⁽⁴⁾ Retired 1 February 2024.

⁽⁵⁾ Appointed as of 13 September 2024.

⁽⁶⁾ Appointed as of 1 July 2023.

⁽⁷⁾ To be appointed as of 1 January 2025.

Under the Australian Corporations Act, shareholders of a listed company have the right to participate in a non-binding vote to approve the adoption of the remuneration report of the company, at each

annual general meeting. The remuneration report is included in the directors' report and is required to contain a discussion of the Board of Directors' policy in relation to remuneration of key management personnel of the Company.

12.2.6 D&O Insurance

The Company has indemnified the Directors and certain officers for costs incurred, in their capacity as director or officer, for which they may be held personally liable, except where there is a lack of good faith. During FY23 the Company paid a premium in respect of a contract to insure the Directors and Executives of the Company against a liability to the extent permitted by the Australian Corporations Act.

12.2.7 Benefits upon termination / Pension payments

The services contracts of the Directors do not provide for benefits upon termination of such contracts.

The total amounts set aside or accrued by Vulcan Group to provide pension and other retirement benefits amount to EUR 12,000 (superannuation Australia) in FY23.

12.2.8 Shares and Performance Rights held by members of the Board of Directors

Table 27 sets out each current Director's relevant interest in Shares and other securities of the Company, to the knowledge of the Company, as at the date of this Prospectus.

Table 27: Director shares and performance rights

Director	Ordinary Shares	Performance Rights
Dr Francis Wedin	16,458,561 ⁽¹⁾	125,724
Mr Gavin Rezos ⁽⁹⁾	8,635,500 ⁽²⁾	-
Ms Annie Liu ⁽⁵⁾	81,678 ⁽³⁾	4,298 ⁽³⁾
Dr Heidi Grön	10,398	4,298
Ms Josephine Bush	40,367	4,298
Ms Ranya Alkadamani ⁽⁹⁾	276,000 ⁽⁴⁾	25,234
Dr Günter Hilken	4,745	9,492
Mr Mark Skelton ⁽⁶⁾	6,745	-
Mr Cris Moreno ⁽⁷⁾	-	525,114
Mr Angus Barker ⁽⁸⁾	20,000	-
Ms Felicity Gooding ⁽¹⁰⁾	-	275,000
Total	25,533,994	973,458

⁽¹⁾ Includes 812,500 Shares held by Magni Associates Pty Ltd. Katy and Francis Wedin are the directors of Magni Associates Pty Ltd and it is 100% owned by Wedin Pty Ltd as trustee for the Wedin Family Trust.

⁽²⁾ These Shares are held by Vivien Enterprises Pte Ltd. The sole shareholder of Vivien Enterprises Pte Ltd is Joanne Ellen Rezos, the spouse of Gavin Rezos, and Vivien Enterprises Pte Ltd is an associate of Mr Gavin Rezos.

⁽³⁾ Includes 30,678 Shares held by Alto Group Inc and 51,000 Shares held by Alto Group Hong Kong Limited, both companies being related parties to Ms Liu. The Performance Rights are held by Alto Group Inc.

⁽⁴⁾ Held by Impact Group International Investments Pty Ltd ATF the Alkadamani Investment Trust, a related party of Ms Alkadamani.

⁽⁵⁾ Retired 13 September 2024.

⁽⁶⁾ Retired 1 February 2024.

⁽⁷⁾ Appointed 1 July 2023.

⁽⁸⁾ Appointed 13 September 2024. Held by Mutual Trust Pty Ltd as registered holder on behalf of Kapala2 Pty Ltd ATF The Barker Superannuation Fund. Mr Barker is the sole member of The Barker Superannuation Fund.

⁽⁹⁾ As announced on 13 September 2024, Mr Rezos and Ms Alkadamani will retire from the Board as of 31 December 2024.

⁽¹⁰⁾ As announced on 27 November 2024, Ms Felicity Gooding will be appointed as an Executive Director, in addition to her role as Group CFO, as of 1 January 2025.

12.2.9 Potential conflicts of interest of the members of the Board of Directors

Under the Australian Corporations Act, a director of a company who has a material personal interest in a matter that relates to the affairs of the company generally is required to give the other directors notice of that interest. If the company is a public company (as the Company is), that director must not be present at a meeting where the matter is being considered or vote on the matter, unless the other directors or ASIC approve, or the matter is not one which requires disclosure under the Australian Corporations Act.

Under the Australian Corporations Act, failure of a director to disclose a material personal interest, or voting despite a material personal interest, does not affect the validity of a contract in which the director has an interest. A company's directors, when entering into transactions with the company, are subject to the common law and statutory duties to avoid conflicts of interest.

With the exception of the conflicts of interest of Mr Gavin Rezos, Dr Horst Kreuter, Dr Francis Wedin and Ms Josephine Bush set out in section "14 TRANSACTIONS AND LEGAL RELATIONSHIPS WITH RELATED PARTIES" of this Prospectus, there are no conflicts of interest or potential conflicts of interest of the members of the Board of Directors as regards the Company on the one side and their private interests, membership in governing bodies of companies, or other obligations on the other side.

12.2.10 Certain information on the members of the Board of Directors

None of the members of the Board of Directors has been convicted in relation to fraudulent offences over the last five years.

From 2020 to 2021, Cris Moreno served as director of Modular Brewing Limited, Leederville, Australia, which was placed under external administration and/or controller appointed on 28 February 2024; aside from remaining a shareholder, Mr Moreno has not had any involvement with Modular Brewing Limited since his resignation in April 2021. Except as disclosed in the previous sentences, no member of the Board of Directors has been associated in his or her capacity as a member of an administrative, management or supervisory board, as a partner with unlimited liability, founder or senior manager with any bankruptcies, receiverships or liquidations or companies put into administration over the last five years. No public incriminations and/or sanctions have been brought against any of the members of the Board of Directors by statutory or regulatory authorities (including designated professional bodies) in the last five years nor have these individuals ever been disqualified by a court from acting as a member of the administrative, management or supervisory bodies of a company or from acting in the management or conduct of the affairs of any company.

There are no family relationships between the members of the Board of Directors.

12.3 General meetings of shareholders

12.3.1 General rules on meetings of shareholders

12.3.1.1 Calling a general meeting

A general meeting of Shareholders may be called from time to time by the Board of Directors or by individual directors.

In addition, Shareholders with at least 5% of the votes that may be cast at a general meeting of Shareholders may request a general meeting. If, following such a request by Shareholders, the Directors do not call a general meeting within 21 days, Shareholders holding 50% of the votes of all of the Shareholders who requested the general meeting may convene and hold a general meeting.

12.3.1.2 The annual general meeting

The Company must hold its annual general meeting of Shareholders at least once in each calendar year and within five months after the end of its financial year.

12.3.1.3 Notice of general meetings

As a company admitted to the official list of ASX, notice of a general meeting of Shareholders must be given to Shareholders at least 28 days before the date of the meeting. Under the Company's Constitution, a notice of meeting is taken as given on the day after the day on which it was posted. When calculating the notice period, the day on which the notice is sent and the day of the meeting are disregarded.

The notice of meeting must include the date and time of the meeting and the general nature of the business of the meeting. Notice of the meeting must be provided to all Shareholders, Directors, alternative Directors and any auditors of the Company.

12.3.1.4 Quorum at a general meeting

A quorum for a general meeting of Shareholders is two Shareholders attending in person, or by proxy, attorney or corporate representative.

12.3.1.5 Passing resolutions at a general meeting of Shareholders

If and for so long as the Company is listed on the ASX, at any general meeting, a resolution must be decided on a poll (and not show of hands) if:

- the notice of meeting set out an intention to propose the resolution and stated the resolution;
- the Company has given notice of the resolution in accordance with section 2490 of the Corporations Act; or
- a poll is demanded.

Subject to any rights or restrictions for the time being attached to any class or classes of Shares, at a general meeting of Shareholders:

- on a show of hands, each Shareholder who is present in person or by proxy, attorney or corporate representative has one vote; and
- on a poll, each Shareholder who is present in person or by proxy, attorney or corporate representative has one vote in respect of each Share held by that person, or in respect of which that person is appointed a proxy, attorney or corporate representative (but, in respect of partly paid shares, will have such number of votes as bears the same proportion to the total of such shares registered in the shareholders' name as the amount paid (not credited) bears to the total amounts paid and payable (excluding amounts credited)). The Constitution and the Corporations Act provides that for so long as the Company is listed on the ASX, at any general meeting, a resolution must be decided on a poll (and not a show of hands) if (a) the notice of meeting set out an intention to propose the resolution and stated the resolution; (b) the Company has given notice of the resolution in accordance with section 2940 of the Corporations Act; or (c) a poll is demanded.

Resolutions at a general meeting of Shareholders are passed with a simple majority of the votes cast unless a higher majority (such as in respect of a "special resolution") or further requirements are provided for by the Australian Corporations Act, the ASX Listing Rules or the Company's Constitution.

A special resolution must be passed by at least 75% of the votes cast by Shareholders entitled to vote on the resolution.

Matters that require shareholder approval (by a resolution passed by a simple majority) under the Australian Corporations Act include:

- electing Directors to, and removing Directors from, the Company's Board of Directors,

- appointing the Company's auditor,
- entering into transactions that give related parties (including Directors) a financial benefit, and
- certain types of equal reductions in capital or equal share buy-backs.

The ASX Listing Rules also require shareholder approval for (among other things):

- the Company to issue, or agree to issue, any Shares to a related party (including a Director),
- subject to specified exceptions, the Company to issue, or agree to issue, more than 15% of the Company's total number of securities (calculated according to a prescribed equation) in any rolling 12-month period (see section "*11.5 General provisions on changes in share rights*"),
- increase the total aggregate amount of directors' fees payable to all of the Company's Non-Executive Directors.

In addition, the Australian Corporations Act requires certain matters to be resolved by a company by special resolution, including:

- the change of name of the Company,
- modification or repeal of the Company's Constitution,
- the conversion of the Company from one type or form to another,
- a selective reduction of capital or selective share buy-back, and
- a decision to wind up the Company voluntarily.

12.3.1.6 Persons entitled to attend general meetings

A general meeting of Shareholders can be attended by:

- Shareholders, in person or by proxy, attorney or corporate representative;
- Directors and public officers of the Company;
- the Company's auditor; and
- any other person or persons approved by the chair of the meeting.

12.3.1.7 Chair

At each general meeting of Shareholders, the chair of the Board of Directors will, if willing, preside as chair of the meeting. The chair of the meeting is responsible for the general conduct and procedures to be adopted at the meeting.

If the Directors have not elected a chair of the Board of Directors or the chair (or, in his absence, the vice chair) is not present within 15 minutes after the time appointed for holding the general meeting of Shareholders or is unwilling to act:

- a) the Directors present at the meeting may elect a chair of the meeting; or
- b) if no chair is so elected by the Directors present, the Shareholders present may elect one of the Shareholders to be the acting chair of the meeting.

12.3.1.8 Adjournment

The chair may adjourn a meeting of Shareholders from time to time and from place to place, but no business may be transacted on the resumption of any adjourned Shareholders' meeting other than the business left unfinished at the meeting from which the adjournment took place.

A poll cannot be demanded on any resolution concerning the adjournment of a general meeting except by the chair of the meeting.

12.3.1.9 Method of voting and demand for poll

If and for so long as the Company is listed on the ASX, at any general meeting, a resolution must be decided on a poll (and not show of hands) if the notice of meeting set out an intention to propose the resolution and stated the resolution; the Company has given notice of the resolution in accordance with section 249O of the Corporations Act; or a poll is demanded.

12.3.1.10 Cancellation and postponement of general meetings

The Directors may at any time postpone a meeting of Shareholders by giving written notice to ASX. If a meeting of Shareholders is postponed for one month or more, the Company must give new notice of the postponed meeting. The only business that may be transacted at a general meeting the holding of which is postponed is the business specified at the original meeting.

In addition, the Directors may, by a resolution passed by a majority of Directors, cancel a meeting of Shareholders that has been called by the Directors by providing Shareholders with not less than two days' notice of such cancellation.

A meeting of Shareholders called following Shareholder requisition in accordance with the Australian Corporations Act may only be cancelled by the Directors if the application was requisition has been withdrawn by Shareholders.

12.3.1.11 Proxies

A Shareholder who is entitled to cast two or more votes at a meeting may appoint up to two proxies to attend and vote at the meeting on the Shareholder's behalf. The Company's Constitution contains provisions specifying the manner of lodgement of proxy appointment instruments.

A proxy need not be a Shareholder, and may be an individual or a corporation.

Where a Shareholder appoints two proxies or attorneys to vote at the same general meeting:

- a) on a show of hands, if more than one proxy or attorney attends, neither may vote; and
- b) on a poll, each proxy or attorney may only exercise votes in respect of those Shares or voting rights the proxy or attorney represents (and if the Shareholder has appointed two proxies and the appointment does not specify the proportion of votes that each proxy may exercise, each proxy may exercise half the votes).

12.3.1.12 Appointment of proxy

The appointment of a proxy is effective only if the instrument effecting the appointment is received by the Company at its registered office or such other place specified in the notice not less than:

- a) 48 hours before the time at which the meeting is scheduled to commence; or
- b) for an adjourned meeting, 48 hours before the resumption of the meeting.

12.3.1.13 Notice of revocation of proxy

Unless the Company has received a notice of revocation of a proxy before commencement of a meeting, a vote cast at the meeting by the appointed proxy is valid, even if, before the proxy votes, the Shareholder has:

- a) sold their shares;
- b) revoked the appointment of that proxy; or
- c) died or become of unsound mind.

The appointment of a proxy is not revoked by the appointing Shareholder attending and taking part in the meeting, unless the appointing Shareholder actually votes at the meeting on the resolution

for which the proxy is proposed to be used, in which case the proxy's appointment is deemed to be revoked with respect to voting on that resolution.

Generally, neither Australian law nor the Company's Constitution restrict the right of non-resident or foreign shareholders to hold Shares or to exercise any voting rights attached to these Shares.

12.3.1.14 Direct Voting

Under the Company's Constitution, the Board of Directors may determine that Shareholders may cast votes to which they are entitled on any or all of the resolutions (including any special resolution) proposed to be considered at, and specified in the notice convening, a general meeting of Shareholders by delivering a notice of the Shareholder's voting intention to the Company by post, fax, electronic or other means approved by the Board of Directors and otherwise in accordance with the Company's Constitution and regulations, rules and procedures made by the Board of Directors.

If the Board of Directors determines that votes may be cast by direct vote, the Board of Directors may make such regulations as it considers appropriate for the casting of direct votes, including regulations for:

- a) the form, method and manner of voting by direct vote; and
- b) the time by which the votes of Shareholders to be cast by direct vote must be received by the Company in order to be effective.

If the Board of Directors determines to allow voting by direct vote on a resolution at a general meeting of Shareholders, the notice of meeting must inform Shareholders of their right to vote by direct vote in respect of that resolution.

Direct votes are not counted if a resolution is decided on a show of hands.

The Company's Constitution sets out further information about voting by direct vote.

12.3.2 Virtual Shareholders' Meetings

Under the Company's Constitution, a general meeting of Shareholders can be held at two or more venues simultaneously using any technology that gives Shareholders as a whole a reasonable opportunity to participate so long as there is a physical venue for the general meeting.

Under the Australian Corporations Act and the Constitution, the Company is permitted to hold a "hybrid" general meeting of Shareholders (where the meeting is held both at a physical location and also through an online facility), provided that Shareholders as a whole are given a reasonably opportunity to participate. Whilst the Australian Corporations Act also allows Australian companies to hold entirely virtual general meetings of shareholders if their constitutions expressly require or permit the company to do so, this is not permitted under the Company's Constitution.

12.4 Corporate Governance

12.4.1 Australia

12.4.1.1 Recommendations published by the ASX Corporate Governance Council

As a company admitted to the official list of ASX, the Company is subject to the Corporate Governance Principles and Recommendations ("**Recommendations**") published by the ASX Corporate Governance Council ("**Council**"). The Recommendations set out recommended corporate governance practices for entities listed on the ASX that, in the Council's view, are likely to achieve good corporate governance outcomes and meet the reasonable expectations of most investors in most situations. The Council recognises, however, that different entities may legitimately adopt different governance practices, based on a range of factors, including their size, complexity, history and corporate culture. For that reason, the Recommendations are not mandatory and do not seek to prescribe the corporate governance practices that a listed entity must adopt.

Under the Recommendations, if the Board of Directors considers that a Recommendation is not appropriate to its particular circumstances, it is entitled not to adopt it. If it does so, however, it must explain why it has not adopted the recommendation – referred to as the "if not, why not" approach.

Each year the Company is required to give to ASX a corporate governance statement, which sets out the extent to which the Company has followed the Recommendations. If the Company has not followed a Recommendation for any part of the reporting period, its corporate governance statement must separately identify that Recommendation and the period during which it was not followed and state its reasons for not following the Recommendation and what (if any) alternative governance practices it adopted in lieu of the Recommendation during that period.

A copy of the Company's corporate governance policies and charters, and its most recent Corporate Governance Statement, are available on the Company's website at <https://v-er.eu/corporate-directory-and-governance/>. The Board believes that the Company's policies and practices comply with the recommendations set out in the Recommendations.

The Board of Directors consider that the Company has established corporate governance policies and procedures that are appropriate in light of the Company's size, nature and activities. The Company's Directors are committed to conducting the Company's business in an ethical manner and in accordance with the highest standards of corporate governance.

12.4.1.2 Code of Conduct

The Company has established a code of conduct ("**Code of Conduct**") to provide a framework for decisions and actions in relation to ethical conduct in employment. The Code of Conduct underpins the Company's commitment to integrity and fair dealing in its business affairs and to a duty of care to all employees, clients and stakeholders.

Pursuant to the Code of Conduct, the Company's primary objective is to build a successful exploration and production company that delivers material benefits to Shareholders and contributes to the development of the regions in which it works, whilst acting lawfully, ethically and responsibly.

12.4.1.3 Securities Trading Policy

A summary of Vulcan Group's Securities Trading Policy is set out in section "*11.13.1 Australia*".

12.4.2 Germany

As a public company limited by shares incorporated in Australia under the Australian Corporations Act and governed by the laws of Australia, the Company is not required to adhere to the German corporate governance regime applicable to stock corporations organised in Germany in addition to the Australian corporate governance regime.

13. MAJOR SHAREHOLDERS

Table 28 sets forth the direct shareholders and the ultimate controlling shareholders within the meaning of sections 33 et seq. WpHG as of the date of this Prospectus, based on the Company's best knowledge.

Table 28: Ultimate controlling shareholders

Ultimate Shareholder	Direct Shareholder	Ownership of the Company (in %)
Dr Francis Wedin	Dr Francis Wedin	8.31
Dr Francis Wedin and Katy Wedin ⁽¹⁾	Magni Associates Pty. Ltd	0.43
Stellantis	PSA Automobiles S.A.	6.08
Hochtief AG	CGI3 Pty Limited	6.29
Ms Joanne Ellen Rezos ⁽²⁾	Vivien Entreprises Pte Ltd	4.59
HPPL and subsidiaries of HPPL ⁽³⁾	HPPL and subsidiaries of HPPL	7.50
Public float		66.80
Total		100.0

Note: Prior to the completion of the Equity Raising (with issuance and settlement of the New Shares expected to occur in accordance with the timetable in section "2.5.2.1 Conditions").

⁽¹⁾ Katy and Francis Wedin are the directors of Magni Associates Pty Ltd and it is 100% owned by Wedin Pty Ltd as trustee for the Wedin Family Trust.

⁽²⁾ The Shares in which Ms. Joanne Ellen Rezos holds an (indirect) interest are held through Vivien Entreprises Pte Ltd. Ms. Joanne Ellen Rezos is the spouse of Mr Gavin Rezos (non-executive deputy chair of the Company) and Vivien Entreprises Pte Ltd is an associate of Mr Gavin Rezos.

⁽³⁾ Each of Georgina Hope Rinehart and Bianca Hope Rinehart (in her capacity as trustee of the Hope Margaret Hancock Trust) has greater than 20% of the voting power in HPPL.

14. TRANSACTIONS AND LEGAL RELATIONSHIPS WITH RELATED PARTIES

The following describes the material transactions and legal relationships that existed between the Company on the one hand and related parties (as defined in IAS 24) on the other hand in FY21, FY22, SFY22, FY23 and in the current financial year up to the date of the Prospectus.

According to IAS 24, related parties of the Company are entities or persons related to the Company, including:

- companies that are controlled by the Company, in which the Company has an interest that gives it a significant influence, or over which it has joint control;
- companies that are associated with the Company within the meaning of IAS 28, and that are not consolidated by Company, as well as joint-ventures in which the Company participates;
- principal shareholders whose shares give them control, joint control or a significant influence over the Company, as well as all companies and businesses over which these shareholders can exert a controlling influence and/or in which they hold more than 50% of the voting rights; and
- members of the Board of Directors (or their close family members), as well as entities controlled or significantly influenced by members of the Board of Directors (or their close family members), or in which those persons directly or indirectly hold significant voting power.

None of the related party transactions described below form part of the revenue of the Company.

14.1 Transactions and relationships with members of the Board of Directors

During the period comprising FY21, FY22, SFY22, FY23 and in the current financial year up to the date of the Prospectus, Shares and Performance Rights of the Company were placed with members of the Board of Directors as described in section "11.2 Development of the share capital over the past three years" and "11.3 Details of unquoted securities". During these same time periods, the members of the Board of Directors (including former Directors that have resigned) received an aggregate remuneration of A\$ 2,176,136 (EUR 1,375,318) in FY21, EUR 1,453,850 in FY22, EUR 625,067 in SFY22, EUR 1,544,121 in FY23, approximately EUR 1,566,484 in the current financial year up to the date of the Prospectus. For a description of the current remuneration of the members of the Board of Directors, please refer to section "12.2.5.3 Remuneration of the members of the Board of Directors in the financial year ended 31 December 2023".

During FY24 up to the date of this Prospectus, there were no outstanding balances payable to the Board of Directors (31 December 2023: EUR 11,666) in relation to director's fee

As of 31 December 2023, there was an outstanding balance payable to Gavin Rezos of EUR 11,666 (31 December 2022: nil) in relation to his director's fees.

During FY22, the Company entered into a contract with Dr Horst Kreuter to rent a flat for company personnel at the rate of EUR 1,810 per month and EUR 418 operating costs monthly. The contract was a short term lease. No amount was paid from inception of the contract until 31 October 2022. The amount of EUR 2,715 was outstanding as at 31 October 2022 and nil was outstanding as at 31 December 2022. Dr. Horst Kreuter ceased to be a KMP on 31 October 2022. The contract was terminated in 2022.

On 6 July 2021, the Company issued 5,698 Shares and 45,587 Performance Shares to Dr Horst Kreuter in consideration for the acquisition of GGH (meanwhile merged with and into Vulcan Energie) following shareholder approval at an extraordinary general meeting held in June 2021. Dr Kreuter was a shareholder of GGH. The Company also completed the acquisition of GeoT (now: VESS), on 2 July 2021 for EUR 1. Dr Kreuter was the sole shareholder of GeoT. Dr. Kreuter will received 50% of any payments received from certain debtors to VESS, if these payments were made to VESS within 18 months of completion of the acquisition. For further details regarding the purchase by Vulcan Group of GGH (meanwhile merged with and into Vulcan Energie), Gec-co (now: VEE) and GeoT (now: VESS) from Dr Horst Kreuter, member of the Board of Directors of the Company between December 2019 and March 2021, and Thorsten Weimann (not a member of the Board of Directors) during FY22.

During the financial year ended 30 June 2020, Dr Horst Kreuter was paid A\$43,474 in consulting fees, prior to becoming a member of the Board of Directors of the Company. On 4 September 2019, 13,200,000 Performance Shares were issued to Dr Francis Wedin and Dr Horst Kreuter in their capacity as vendors in connection with the acquisition by Vulcan Group of 100% of the issued capital of Vulcan Energy Resources Europe Pty Ltd, which were converted into Shares on a one for one basis on 28 February 2020, 15 January 2021 and 17 December 2021, respectively, as a result of the relevant milestone being reached upon Vulcan Group entering into the lithium offtake agreements with Stellantis, Volkswagen, Renault and Umicore (see section "8.16.3 Offtake Agreements").

14.2 Transactions and relationships with related parties of members of the Board of Directors

During FY21, FY22, SFY22, FY23 and in the current financial year up to the date of the Prospectus, Shares, Performance Shares and Performance Rights of the Company were placed with related parties of members of the Board of Directors as described in section "11.2 Development of the share capital over the past three years" and "11.3 Details of unquoted securities".

During FY24 up to the date of this Prospectus there were no consultancy fees paid to related parties of the Board of Directors.

During FY23, payments for consultancy fees of EUR 12,056 were made to JRB Consulting Ltd, a related party of Ms Josephine Bush, in respect of expert advice on ESG reporting. There were no amounts outstanding as at 31 December 2023 to JRB Consulting Ltd (31 December 2022: EUR 8,709), however, there was a prepayment for Ms Bush's director's fee to the value of EUR 3,605.

During SFY22, payments for consultancy fees of EUR 28,089 were made to JRB Consulting Ltd, a related party of Ms Josephine Bush, in respect of expert advice on ESG reporting. There were no amounts outstanding as at 31 December 2022 to JRB Consulting Ltd (30 June 2022: EUR 8,709). There was EUR 4,954 outstanding as at 31 December 2022 (30 June 2022: EUR nil) to Sustineri Strategy Ltd, a related party to Ms Josephine Bush, in relation to ESG consulting provided.

During FY22, payments for consulting fees of EUR 52,834 were made to Alto Group Inc., a related party of Ms Annie Liu. A capital raising fee relating to the placement of shares to sophisticated investors on 6 February 2021 in an amount of EUR 30,834 was paid to Viaticus Capital Pty Ltd, a company related to Mr Rezos. Moreover, payments for corporate advisory services outside of Australia of EUR 28,170 had been made to Viaticus Capital. The outstanding balance to Viaticus Capital at 30 June 2021 had been EUR 43,504. During FY22, payments for consultancy fees of EUR 33,968 (2021: Nil) were made to JRB Consulting Ltd, a related party of Ms Josephine Bush in respect of a Board-mandated review of the Company's Target Operating Model and ESG reporting.

During FY21, payments for corporate advisory services outside of Australia of A\$45,000 (2020: A\$73,185) were made to Viaticus Capital, a related party of Mr Rezos. Viaticus Capital also received fees of A\$49,256 (2020: A\$18,000) for capital raising fees associated with a placement undertaken in FY21. The corporate advisory services agreement with Viaticus Capital entered into in 2018 was amended by mutual agreement during the reporting period to exclude any capital raising, M&A or related services. Payments for consulting fees of A\$43,044 (2020: A\$0) were made to Alto Group Inc., a related party of Ms Annie Liu. The outstanding balance to Alto Group Inc. at 30 June 2021 was A\$17,493 (2020: A\$0). In addition, payments for engineering services of EUR 736,609 were made to GeoT (now: VESS), a related party of Dr Horst Kreuter, member of the Board of Directors of the Company between December 2019 and March 2021.

During the financial year ended 30 June 2020, payments for corporate advisory services outside of Australia of A\$73,185 were made to Viaticus Capital, a related party of Mr Rezos. Viaticus Capital also received fees of A\$18,000 for capital raising fees associated with a placement undertaken in June 2020. There was A\$33,000 trade payable/accrual balance at 30 June 2020. In addition, payments for engineering services of EUR 77,035 were made to GeoT (now: VESS), a related party of Dr Horst Kreuter.

15. RECENT DEVELOPMENTS AND OUTLOOK

15.1 Recent developments

In the period after 31 December 2023, the Company focused on the financing of Phase One of the Project, the preparations for the Equity Raising and Admission to Trading, as well as on its further business operations.

Noteworthy developments in connection with Vulcan Group's business operations since 31 December 2023 are summarised below.

- On 23 February 2024, the Company announced that the European Investment Bank had approved the Project's eligibility for debt financing in a preliminary assessment and has progressed to the stage of considering a financing proposal in an amount of up to EUR 500 million (see section "8.1.3.5 Funding on Company Level and on Project Level").
- On 11 April 2024, the Company announced that production of the LiCl product started at Vulcan Group's LEOP in Landau, Germany, heralding the first lithium chemicals domestically produced from a local source in Europe.
- On 17 May 2024, the Company announced that it had launched the second and final phase of its Project-level debt and equity funding package, with the support of BNP Paribas, following significant in-principle and non-binding interest from strategic and financial investors, commercial banks, the EIB, and major government-backed ECAs (see section "8.1.3.5 Funding on Company Level and on Project Level").
- On 3 June 2024, in connection with the placement to Hochtief, HPPL and Victor Smorgon Group, the Company announced the issue of 16,000,000 new Shares in total to Hochtief, HPPL and Victor Smorgon Group at offer price of EUR 2.50 per new Share, resulting in EUR 40 million in gross proceeds to the Company.
- On 8 August 2024, the Company announced that it had commenced commissioning of the downstream lithium hydroxide optimisation plant, designated CLEOP. Once operational, CLEOP will convert LiCl produced from the Company's upstream operations to battery grade LHM, which will represent the first fully domestically produced LHM, from raw materials to final product, in Europe.
- On 13 September 2024, the Company announced several changes to the composition of its Board. With effect as of 13 September, Ms Annie Liu retired from her role as non-executive director of the Company and Mr Angus Barker was appointed as new non-executive director. Moreover, it is intended that both Mr Gavin Rezou and Ms Ranya Alkadamani will retire from the Board on 31 December 2024 (see section "12.2.2 Board Charter").
- On 27 September 2024, Vulcan Group entered into a EUR 10,000,000 credit facility with BNP Paribas to provide short term flexibility prior to completion of the equity and debt financing of Phase One of the Project (see section "8.16.2.1 Secured credit facility").
- On 27 September 2024, Vulcan Group entered into an agreement to acquire 100% of the shares in geox from the IKAV Group. geox holds the Landau Süd Licence and Ilka Licence, which are expected to contribute to approximately 20% of planned brine production for Phase One (see also section "8.16.1.1 Geox Purchase Agreement"). The acquisition of geox is subject to completion, pending certain outstanding transfer procedures.
- On 25 October 2024, the Company published (i) the Quarterly Activities Report and (ii) the Quarterly Cashflow Report (including unaudited cashflow information for the nine-month period ended 30 September 2024) in accordance with ASX and FSE requirements. In the nine-month period ended 30 September 2024, the Company's net cash used in operating activities was EUR 19.424 million, its net cash used in investing activities was EUR 58.102 million and its net cash used in financing activities was EUR 35.124 million. Cash and cash equivalents decreased by EUR 42.258 million, or 54%, to EUR 36.470 million as at 30 September 2024 compared to 31 December 2023 from EUR 78.728 million.
- On 27 October 2024, Vulcan Group's Sustainability and ESG Framework has been assessed by leading independent ratings agency, S&P Global Ratings, and been awarded a "Dark Green" rating overall.

- On 8 November 2024, Vulcan Group achieved first production of LHM from its CLEOP.
- On 14 November 2024, the Company announced that it received commitment, subject to certain conditions of EUR 100 million funding from the Federal Ministry of Economics and Climate Protection of Germany for its HEAT4LANDAU Project, which is part of the Lionheart (see section "6.1 Overview").
- On 20 November 2024, the Company entered into a staged agreement with the world's largest chemicals producer, BASF, to collaborate on the development of a renewable heat project that will supply BASF Verbund site Ludwigshafen with affordable baseload heat (see section "8.1.3.3 Validation / New developments since the Bridging Study").
- On 27 November 2024, the Company announced that Ms Felicity Gooding will be appointed as an Executive Director, in addition to her role as Group CFO, as effective of 1 January 2025.
- On 9 December 2024 the Company announced the Board of Export Finance Australia (EFA) has approved a EUR 120 million commitment as part of the Company's debt financing process for its Phase One integrated lithium and renewable energy project.
- On 10 December 2024 the Company announced that the Board of Directors had resolved to increase the share capital of the Company against contributions in cash to generate gross proceeds in the amount of approximately EUR 100 million by issuing approximately 28 million new fully paid ordinary shares with full dividend rights.
- On 12 December 2024 the Company announced the Board of the European Investment Bank (EIB) has approved its participation in the Company's debt financing process for its Phase One Lionheart Project. The EIB's proposed financing amounts to up to EUR 500 million, pending completion of final due diligence, signing of legal documentation and final internal approval.
- On 17 December 2024, Vulcan Group received a commitment letter from financing parties for its Envisaged Debt Financing. However the Envisaged Debt Financing is subject to finalisation, including alignment of key outstanding matters, credit committee and/or board approval, definitive agreements, and satisfaction of conditions precedent. (see section "8.1.3.5 Funding on Company Level and on Project Level").

Apart from this, there have been neither significant changes to Vulcan Group's financial performance nor to Vulcan Group's financial position between 31 December 2023 and the date of this Prospectus.

15.2 Outlook

Vulcan Group intends to progress to complete the Envisaged Debt Financing and the Envisaged Equity Financing for the funding of Phase One.

The Company believes it is well positioned to continue its path to execute the development of Phase One of the Project. Vulcan Group plans to focus its cash spend to execute its Project on schedule, as it moves into the execution stage of Phase One by:

- commencing execution of Phase One of the Project (see section "8.1.3 Vulcan Group's Mission to implement the Project"); and
- obtain relevant permits in line with development timeline.

Vulcan Group is currently aiming at commencing commercial delivery under its lithium offtake agreements for Phase One with Umicore, Renault, Stellantis and LG Energy in 2027 and 2028, with commercial delivery under the lithium offtake agreement with Volkswagen to occur as part of a future phase of production beyond Phase One. Following commencement, Vulcan Group intends on expanding its commercial production in line with the expected growth in the European BEV market and believes it is well positioned to continue its growth path following commencement of commercial production due to market trends.

Commercial delivery under Vulcan Group's heat offtake agreement with ESW is currently targeted to commence in 2027, with commercial delivery under the heat offtake agreement with MVV Energie

and phased project agreements with Stellantis (for renewable heat) to occur as part of a future phase of production beyond Phase One, which is yet to be defined.

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17.1 Unaudited Consolidated Interim Financial Statements 2024

17.1.1 Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the half-year ended 30 June 2024

	Note	6-months 30 Jun 2024 €'000	6-months 30 Jun 2023 €'000
Revenue from continuing operations	3	3,753	3,104
Other income		297	461
Loss from equity accounted investments		(50)	(465)
Other own work capitalised		9,347	7,487
Raw materials and purchased services		(555)	(1,627)
Employee benefit expenses		(19,748)	(12,933)
Depreciation and amortisation expenses		(3,336)	(2,942)
Impairment expenses		-	(1,040)
Share-based payments expense		(1,151)	(905)
Other expenses		(9,071)	(9,349)
Net foreign exchange gain		450	772
Finance income		1,005	1,560
Interest expense		(89)	(118)
Loss before income tax for the period		(19,148)	(15,995)
Income tax (expense)/ benefit		(198)	411
Loss after income tax for the period		(19,346)	(15,584)
Other comprehensive income			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations		(131)	(3,394)
<i>Items that will not be reclassified subsequently to profit or loss</i>			
Revaluation of investments at fair value through other comprehensive income		(837)	
Total comprehensive loss for the period (net of tax)		(20,314)	(18,978)
Total comprehensive loss for the period attributable to the owners of Vulcan Energy Resources Limited		(20,314)	(18,978)
Loss per share for the year attributable to the members			
Vulcan Energy Resources Limited:			
Basic loss per share (Euro cents)	14	(11.1)	(10.4)
Diluted loss per share (Euro cents)	14	(11.1)	(10.4)

17.1.2 Consolidated Statement of Financial Position

As at 30 June 2024

	Note	30 Jun 2024 €'000	31 Dec 2023 €'000
Assets			
Current assets			
Cash and cash equivalents	4	60,577	78,728
Trade and other receivables	5	7,025	6,899
Contract assets		368	117
Inventories		158	327
Total current assets		68,128	86,071
Non-current assets			
Investments accounted for using equity method		73	124
Financial assets at fair value through other comprehensive income		1,704	2,550
Exploration and evaluation expenditure	7	53,088	48,475
Other assets	6	17,194	11,775
Property, plant and equipment	8	161,710	138,605
Right-of-use assets		3,994	4,416
Intangible assets	9	1,584	1,655
Deferred tax assets		3,101	3,212
Total non-current assets		242,448	210,812
Total Assets		310,576	296,883
Liabilities			
Current liabilities			
Trade and other payables	10	10,806	17,194
Derivative financial instrument		-	133
Employee benefits		2,122	1,509
Lease liabilities		1,061	1,086
Provisions		750	750
Income tax liabilities		104	113
Total Current liabilities		14,843	20,785
Non-current liabilities			
Lease liabilities		2,996	3,325
Provisions		202	264
Deferred income		2,827	2,818
Deferred tax liabilities		1,366	1,410
Total non-current liabilities		7,391	7,817
Total Liabilities		22,234	28,602
Net Assets		288,342	268,281
Equity			
Share capital	11	362,963	323,739
Reserves	12	13,560	13,377
Accumulated losses		(88,181)	(68,835)
Total Equity		288,342	268,281

17.1.3 Consolidated Statement of Changes in Equity

For the half-year ended 30 June 2024

Consolidated	Issued Capital €'000	Revaluation Reserve €'000	Share-based payment reserve €'000	Foreign Currency Reserve €'000	Accumulated Losses €'000	Total €'000
At 1 January 2024	323,739	(1,870)	11,522	3,725	(68,835)	268,281
Loss for the period	-	-	-	-	(19,346)	(19,346)
Other comprehensive loss	-	(837)	-	(131)	-	(968)
Total comprehensive loss for the period after tax	-	(837)	-	(131)	(19,346)	(20,314)
Transactions with owners in their capacity as owners:						
Issue of share capital (note 11)	40,000	-	-	-	-	40,000
Share issue costs (note 11)	(776)	-	-	-	-	(776)
Share-based payments (note 16)	-	-	1,151	-	-	1,151
Balance at 30 June 2024	362,963	(2,707)	12,673	3,594	(88,181)	288,342
At 1 January 2023	259,158	-	9,706	6,169	(41,872)	233,161
Loss for the period	-	-	-	-	(15,584)	(15,584)
Other comprehensive loss	-	-	-	(3,394)	-	(3,394)
Total comprehensive loss for the period after tax	-	-	-	(3,394)	(15,584)	(18,978)
Transactions with owners in their capacity as owners:						
Issue of share capital	67,350	-	-	-	-	67,350
Share issue costs	(2,769)	-	-	-	-	(2,769)
Share-based payments (note 16)	-	-	1,033	-	-	1,033
Balance at 30 June 2023	323,739	-	10,739	2,775	(57,456)	279,797

17.1.4 Consolidated Statement of Cash Flows¹

For the half-year ended 30 June 2024

	6 months 30 Jun 2024 €'000	6 months 30 Jun 2023 €'000
Cash flows from operating activities		
Receipts from customers (inclusive VAT)	3,832	4,269
Payments to suppliers and employees	(17,759)	(19,581)
Interest received	1,352	1,209
Other income	151	1,230
Interest paid	(89)	(118)
Net cash used in operating activities	(12,513)	(12,991)
Cash flows from investing activities		
Payments for exploration and evaluation expenditure	(6,913)	(8,949)
Payments for Property, plant, and equipment	(36,607)	(27,977)
Payment to acquire subsidiary	-	(150)
Cash acquired upon acquisition of subsidiary	-	88
(Payments to acquire)/Receipts from sale of financial assets	(87)	707
Net cash used in investing activities	(43,607)	(36,281)
Cash flows from financing activities		
Proceeds from issue of shares	40,000	67,350
Share issue costs	(67)	(2,770)
Lease repayments	(565)	(605)
Financing costs	(1,544)	-
Proceeds from borrowings	-	195
Repayments from borrowings	-	(195)
Net cash from financing activities	37,824	63,975
Net (decrease) / increase in cash and cash equivalents	(18,296)	14,703
Cash and cash equivalents at beginning of the period	78,728	134,107
Effect of exchange rate fluctuations	145	(1,168)
Cash and cash equivalents at end of the period	60,577	147,642

¹ Cash inflows/(outflows) by activity within the Consolidated Statement of Cash flows differ from the cash inflows/(outflows) by activity reported in the Group's Appendix 5B Quarterly Cashflow Report released to ASX on 29 July 2024.

17.1.5 Notes to the Consolidated Financial Statements

NOTE 1 SUMMARY OF MATERIAL ACCOUNTING POLICIES

(a) Basis of Preparation

These general purpose interim financial statements for the half-year ended 30 June 2024 have been prepared in accordance with the requirements of the Corporations Act 2001 and Australian Accounting Standard AASB 134 "Interim Financial Reporting". Compliance with AASB 134 ensures compliance with International Accounting Standard 34 "Interim Financial Reporting".

These general-purpose financial statements do not include all the notes of the type normally included in annual financial statements. Accordingly, these financial statements are to be read in conjunction with the annual report for the year ended 31 December 2023 and any public announcements made by the Company during the interim reporting period in accordance with the continuous disclosure requirements of the *Corporations Act 2001*.

The financial statements are presented in Euros, which is Vulcan Energy Resources Limited's presentation currency.

The accounting policies adopted are consistent with those of the previous financial period and the corresponding interim reporting period.

(b) New or amended Accounting Standards and Interpretations adopted

The consolidated entity has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board that are mandatory for the current reporting period.

Any new or amended Accounting Standards or interpretations that are not yet mandatory have not been early adopted.

(c) Going Concern

The consolidated financial statements have been prepared on a going concern basis, which contemplates continuity of normal business activities and the realisation of assets and discharge of liabilities in the normal course of business. As disclosed in the consolidated financial statements, the Group incurred a loss after tax of €19.3m and had net cash outflows from operating and investing activities of €12.5m and €43.6m respectively for the half-year ended 30 June 2024. As at that 30 June 2024, the Group had a net current assets surplus of €53.3m and cash and cash equivalents of €60.6m.

The Directors believe that it is reasonably foreseeable that the consolidated entity will continue as a going concern and that it is appropriate to adopt the going concern basis in the preparation of the financial report after consideration of the following factors:

- The Group's ability to issue additional shares under the *Corporation Act 2001* to raise further working capital. The Group has demonstrated its ability to raise capital from strategic and institutional investors with over €360m raised through equity raisings in the past, including €40m raised in June 2024.
- During the reporting period, the Group was advised by the European Investment Bank (EIB) that its Phase One ZERO CARBON LITHIUM™ Project appears potentially suitable for EIB financing and the project has advanced to the "Under Appraisal" stage. EIB's proposed financing could amount to up to €500m, pending completion of due diligence, credit approval and legal agreement, and subject to EIB's governing bodies approval.
- In May 2024, Vulcan launched the second and final phase of its project-level financing process, led by BNP Paribas. The first phase of the finance process was completed during the reporting period, with the Company receiving significant interest from strategic and financial investors, commercial banks, the EIB and major government-backed export credit agencies. The Company has entered formal discussions with Tier 1 financing partners who have expressed in principle and non-binding interest. In parallel with the project-level debt process, Vulcan has also launched the second phase of its project-level equity financing process, having received significant interest from strategic and financial investors after a first due

diligence phase, including from infrastructure and energy companies with whom Vulcan is expecting to build long term strategic partnerships with as part of this process.

NOTE 2 SEGMENT INFORMATION

Accounting Policy

Segment Reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board. Management has determined that based on the report reviewed by the Board and used to make strategic decisions, that the consolidated entity has three reportable segments.

Identification of reportable operating segments

The consolidated entity is organised into three operating segments based on geographical location: Germany, Other European (comprised of France and Italy) and Australia. These operating segments are based on the internal reports that are reviewed and used by the Executive Key Management Personnels (who are identified as the Chief Operating Decision Makers (CODM)) in assessing performance and in determining the allocation of resources. There is no aggregation of operating segments.

The CODM reviews EBITDA (earnings before interest, tax, depreciation and amortisation). The accounting policies adopted for internal reporting to the CODM are consistent with those adopted in the financial statements.

The information reported to the CODM is on a monthly basis.

Types of products and services

Germany – the supply of geothermal energy, exploration and development related to the ZERO CARBON LITHIUM™ Project and engineering services.

Other European (France and Italy) – exploration and development relating to battery materials and geothermal lithium.

Australia – administration costs and Definitive Feasibility Study ("DFS") engineering costs.

Intersegment transactions

Intersegment transactions were made at market rates. Engineering services have been provided within the German segment. All intersegment receivables and payables, including the profit margin, are eliminated on consolidation.

Major customers

During the period ended 30 June 2024, approximately €2.2m (30 June 2023: €2.0m) of the consolidated entity's external revenue was derived from sales to Pfalzwerke.

For the half-year ended 30 June 2024

Segment performance	Germany €'000	Other European Countries €'000	Australia €'000	Total €'000
Revenue				
Sales to external customers	3,753	-	-	3,753
Intersegment sales - Other own work capitalised	9,256	-	91	9,347
Total sales revenue	13,009	-	91	13,100

Other income	297	-	-	297
Total segment revenue	13,306	-	91	13,397
EBITDA	(12,945)	(66)	(3,717)	(16,728)
Depreciation and amortisation	(3,310)	-	(26)	(3,336)
Finance expense	(88)	-	(1)	(89)
Interest income	213	-	792	1,005
Loss before income tax expense	(16,130)	(66)	(2,952)	(19,148)
Income tax expense	(198)	-	-	(198)
Loss after income tax expense	(16,328)	(66)	(2,952)	(19,346)
Material items include:				
Employee benefit expense	(18,606)	(37)	(1,105)	(19,748)

As at 30 June 2024

Assets and Liabilities	Germany €'000	Other European Countries €'000	Australia €'000	Total €'000
Assets				
Segment assets	233,192	417	344,281	577,890
Intersegment eliminations				(267,314)
Total assets				310,576
Total assets include:				
Investments accounted for using equity method	-	-	73	73
Exploration and evaluation expenditure additions (note 7)	3,614	-	236	3,850
Additions to property, plant and equipment (note 8)	26,439	-	-	26,439
Liabilities				
Segment liabilities	25,963	523	2,287	28,773
Intersegment eliminations				(6,539)
Total Liabilities				22,234

For the half-year ended 30 June 2023

Segment performance	Germany €'000	Other European Countries €'000	Australia €'000	Total €'000
Revenue				
Sales to external customers	3,104	-	-	3,104
Intersegment sales - Other own work capitalised	7,239	-	248	7,487
Total sales revenue	10,343	-	248	10,591
Other income	461	-	-	461
Total segment revenue	10,804	-	248	11,052
EBITDA	(8,460)	(151)	(4,844)	(13,455)
Depreciation and amortisation	(2,915)	-	(27)	(2,942)

Finance expense	(111)	-	(7)	(118)
Interest income	528	-	1,032	1,560
Impairment	(1,040)	-	-	(1,040)
Loss before income tax expense	(11,998)	(151)	(3,846)	(15,995)
Income tax benefit	411	-	-	411
Loss after income tax expense	(11,587)	(151)	(3,846)	(15,584)
Material items include:				
Employee benefit expense	(11,904)	(33)	(996)	(12,933)

As at 31 December 2023

Assets and Liabilities	Germany €'000	Other European Countries €'000	Australia €'000	Total €'000
Assets				
Segment assets	223,333	433	305,364	529,130
Intersegment eliminations				(232,247)
Total assets				296,883
Total assets include:				
Investments accounted for using equity method	-	-	124	124
Exploration and evaluation expenditure additions	16,591	98	2,087	18,776
Additions to property, plant and equipment	71,657	-	-	71,657
Liabilities				
Segment liabilities	33,776	466	1,183	35,425
Intersegment eliminations				(6,823)
Total Liabilities				28,602

NOTE 3 REVENUE

	6-months 30-Jun-24 €'000	6-months 30-Jun-23 €'000
Revenue from contract with customers		
Sale of goods	2,223	1,961
Rendering of services	526	56
Drilling Personnel outsourcing	1,004	1,087
Revenue from continuing operations	3,753	3,104

	Electricity sales		Engineering Services		Drilling Services		Total	
	6-mths 30-Jun- 24 €'000	6-mths 30-Jun- 23 €'000	6-mths 30-Jun- 24 €'000	6-mths 30-Jun- 23 €'000	6-mths 30-Jun- 24 €'000	6-mths 30-Jun- 23 €'000	6-mths 30-Jun- 24 €'000	6-mths 30-Jun- 23 €'000
Timing of revenue recognition								
Goods transferred at a point in time	2,223	1,961	-	-	-	-	2,223	1,961
Services transferred over time	-	-	526	56	1,004	1,087	1,530	1,143
	2,223	1,961	526	56	1,004	1,087	3,753	3,104

All revenues are derived in Germany.

NOTE 4 CASH AND CASH EQUIVALENTS

	30-Jun-24 €'000	31-Dec-23 €'000
Cash at bank and in hand	60,509	23,915
Short-term deposits	68	54,813
	60,577	78,728

NOTE 5 TRADE AND OTHER RECEIVABLES

	30-Jun-24 €'000	31-Dec-23 €'000
Trade receivables	1,067	608
Prepayments	833	712
Other receivables	1,870	2,061
Other - bank guarantees	1,045	958
VAT receivable	2,210	2,560
	7,025	6,899

NOTE 6 OTHER ASSETS

The group has recognised the following other assets relating to prepayments on capital items.

	30-Jun-24 €'000	31-Dec-23 €'000
Prepayments relating to capital items	14,892	11,775
Borrowing costs	2,302	-
	17,194	11,775

Accounting Policy

Borrowings are initially measured at fair value less any directly attributable borrowing costs. Subsequent to initial recognition, these liabilities are measured and amortised at cost using the effective interest method.

The borrowing costs relate to the funding of Phase one of the Project. The funding was not yet available as at 30 June 2024 as negotiations are still ongoing. When the funding is available, the borrowing costs will be transferred to offset borrowing liabilities on the consolidated statement of financial position. The borrowing costs will be amortised over the term of the debt funding using the effective interest rate method.

NOTE 7 EXPLORATION AND EVALUATION EXPENDITURE

	30-Jun-24 €'000	31-Dec-23 €'000
Carrying amount of exploration and evaluation expenditure	53,088	48,475
At the beginning of the period	48,475	30,135
Exploration expenditure incurred	3,850	18,776
Reclassification from Property, Plant and Equipment	711	-
Foreign exchange Loss	52	(436)
At the end of the period	53,088	48,475

NOTE 8 PROPERTY, PLANT AND EQUIPMENT

	30-Jun-24 €'000	31-Dec-23 €'000
Software	662	655
Plant & Equipment	72,303	26,188
Land & Buildings	4,632	4,659
Assets under Construction	84,113	107,103
	161,710	138,605

Movement in carrying amounts of property, plant and equipment for the financial period ended 30 June 2024

	Software €'000	Plant and equipment €'000	Asset under construction €'000	Land and Building €'000	Total €'000
Cost					
At 1 January 2024	781	32,607	107,103	4,834	145,325
Additions	39	7,912	18,473	15	26,439
Disposals	-	-	-	-	-
Reclassifications to E&E ¹	-	-	(711)	-	(711)
Transfers to plant & equipment ²	-	40,752	(40,752)	-	-
At 30 June 2024	820	81,271	84,113	4,849	171,053
Accumulated Depreciation					
At 1 January 2024	(126)	(6,419)	-	(175)	(6,720)
Depreciation for the year	(32)	(2,549)	-	(42)	(2,623)
Depreciation eliminated on disposal	-	-	-	-	-
At 30 June 2024	(158)	(8,968)	-	(217)	(9,343)
Carrying amount					
At 1 January 2024	655	26,188	107,103	4,659	138,605
At 30 June 2024	662	72,303	84,113	4,632	161,710

¹Reclassifications to exploration and evaluation expenditure.

²Transfers of assets under construction to plant & equipment during the period, at cost value.

NOTE 9 INTANGIBLE ASSETS

	30 Jun 2024 €'000	31 Dec 2023 €'000
Customer contracts – at cost	1,809	1,526
Acquired in Business Combinations	-	387
Less: Impairment	-	(104)
Less: Accumulated amortisation	(1,490)	(1,466)
	319	343
Operating permit - at cost	1,500	1,500
Less: Accumulated amortisation	(235)	(188)
	1,265	1,312
Total Intangible Assets	1,584	1,655

Reconciliation of the written down values at the beginning and the end of the current financial period are set out below:

	Customer Contracts €'000	Operating Permit €'000	TOTAL €'000
Balance at 1 January 2024	343	1,312	1,655
Less: amortisation	(24)	(47)	(71)
Balance at 30 June 2024	319	1,265	1,584

NOTE 10 TRADE AND OTHER PAYABLES

	30 Jun 2024 €'000	31 Dec 2023 €'000
Trade payables	4,804	9,514
Accrued expenses	3,824	5,969
Other payables	1,604	1,812
VAT Payable	574	-
	10,806	17,194

NOTE 11 CONTRIBUTED EQUITY

	30 Jun 2024		31 Dec 2023	
	No'000	€'000	No'000	€'000
Fully paid ordinary shares	188,189	362,963	172,073	323,739
	Date	Number	Issue Price €	€'000
At 1 January 2024		172,073,008		323,739
Placement to institutional investors	12/06/2024	16,000,000	2.50	40,000
Exercise of Class Y performance rights	12/06/2024	60,000		
Exercise of Class AC performance rights	12/06/2024	9,490		
Exercise of Class AE performance rights	12/06/2024	41,357		
Shares issued in exchange for service	12/06/2024	4,716		
Less capital raising costs		-		(776)
At 30 June 2024		188,188,571		362,963

NOTE 12 RESERVES

	30 Jun 2024 €'000	31 Dec 2023 €'000
Share based payment reserve	12,673	11,522
Revaluation reserve	(2,707)	(1,870)
Foreign currency translation reserve	3,594	3,725
Total	13,560	13,377

Share-based Payment Reserve

	Number of Performance Rights	€'000
<u>Movement reconciliation</u>		
On issue at 1 January 2024	1,551,268	11,522
Issue of performance rights during the period (note 16)	1,600,160	120
Exercise of Performance Rights during the period	(110,847)	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants in prior periods (note 16)	-	761
Performance rights cancelled or forfeited	(239,671)	270
On issue at 30 June 2024	2,800,910	12,673

NOTE 13 FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	30 Jun 2024 €'000	31 Dec 2023 €'000
Australian listed shares	1,704	2,550

NOTE 14 LOSS PER SHARE

	6-months 30 Jun 2024	6-months 30 Jun 2023
Net loss for the year €'000	(19,346)	(15,584)
Weighted average number of ordinary shares for basic and diluted loss per share	173,676	149,560
Basic and diluted loss per share (Euro)	(11.1)	(10.4)

NOTE 15 FAIR VALUE MEASUREMENT

Fair value hierarchy

This section explains the judgements and estimates made in determining the fair values of the financial instruments that are recognised and measured at fair value in the financial statements. To provide an indication about the reliability of the inputs used in determining fair value, the group has classified its financial instruments into the three levels prescribed under the accounting standards.

	30 Jun 2024 €'000	31 Dec 2023 €'000
Level 1		
Financial assets		
Financial assets at fair value through other comprehensive income		
Australian listed equity securities	1,704	2,550
Level 2		
Financial liabilities		
Forward foreign currency contracts held for sale	-	133

There were no transfers between levels 1 and 2 for recurring fair value measurements during the year. The group's policy is to recognise transfers into and out of fair value hierarchy levels as at the end of the reporting period.

NOTE 16 SHARE-BASED PAYMENTS

	6 months 30 Jun 2024 €'000	6 months 30 Jun 2023 €'000
Recognised share-based payment transactions		
Performance rights issued to Directors, staff and consultants	120	146
Performance rights issued to Directors & staff in prior periods	761	759
Performance rights cancelled or forfeited	270	-
Performance rights issued as consideration for acquisition of subsidiary Comeback	-	128
	1,151	1,033
Represented by		
Share-based payment expense	1,151	905
Acquisition of subsidiary	-	128
	1,151	1,033
Details of new issues during the period		

On 29 March 2024, the Company granted 363,660 performance rights to staff to align their interests to that of the Company's shareholders and assist as an effective means of retention.

In addition to remaining an employee on 31 December 2024, the rights were granted with the following vesting conditions (with equal weighting):

- The Company has produced one tonne of lithium hydroxide at Vulcan's Central Lithium Electrolysis Optimization Plant (CLEOP);
- The Company has all permits necessary for the planned execution of phase 1 as per the Bridging Study;
- The Company has secured all land necessary for the interconnecting pipeline and power between Insheim and Schleidberg; D12 to 40 Morgen and Trappelberg;

- The Company has commenced 'shovel in the ground' construction of the Geothermal and Lithium Extraction Plant;
- The Company has started drilling its first new well;
- The Company has entered into binding and unconditional agreements to fully finance Phase 1 of its operations;

The value of performance rights was determined, as follows:

Type	Fair value of each right (EUR)	Number of Rights	Grant Date	Vesting date	Class	Expiry date	Value of Rights (EUR)	Share based payment expense (EUR)
Employer Grant – Tranche 3	1.73	363,660	29/03/24	31/12/24	IP	31/12/26	629,875	101,536

On 24 June 2024, the Company granted 50,000 Special Performance Rights to the CFO of Germany, which will vest upon the recipient remaining employed by the Company on 31 December 2025. On the same date, the Company also granted 40,000 performance rights to an external consultant, which are subject to a vesting condition of achieving production of battery-grade lithium hydroxide to specification from the Central Lithium Electrolysis Optimisation Plant (CLEOP) by 31 December 2024.

The value of performance rights was determined, as follows:

Type	Fair value of each right (EUR)	Number of Rights	Grant Date	Vesting date	Class	Expiry date	Value of Rights (EUR)	Share based payment expense (EUR)
Special performance rights	2.36	50,000	24/06/24	31/12/25	IP	31/12/26	117,933	1,126
Performance rights – consultant	2.36	40,000	24/06/24	31/12/24	IP	31/12/26	94,346	2,631

Under the Company's Incentive Award plan, the Company issued the following incentives to Executives during the period:

- an annual deferred incentive (ADI), designed to reward creation of exceptional short-term shareholder value as evidenced by the performance hurdles, issued in three tranches as Class IP
- a long-term incentive (LTI), designed to reward creation of exceptional long-term shareholder value as evidenced by performance hurdles, issued in seven tranches as Class IP

Details of the Executive ADIs are as follows:

Item	Executive Rights – ADI			Group CFO Rights – ADI		
	Tranche 1	Tranche 2	Tranche 3	Tranche 1	Tranche 2	Tranche 3
Grant date	24/06/2024	24/06/2024	24/06/2024	17/06/2024	17/06/2024	17/06/2024
Fair value of each right (EUR)	2.36	2.36	2.36	2.63	2.63	2.63
Commencement of performance period	24/06/2024	24/06/2024	24/06/2024	17/06/2024	17/06/2024	17/06/2024
Performance measurement date	31/12/2024	31/12/2024	31/12/2024	31/12/2024	31/12/2024	31/12/2024
Vesting date	31/12/2024	31/12/2024	31/12/2024	31/12/2024	31/12/2024	31/12/2024
Expiry date	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026
Volatility	n/a	n/a	n/a	n/a	n/a	n/a
Risk-free rate	n/a	n/a	n/a	n/a	n/a	n/a
Dividend yield	nil	nil	nil	nil	nil	nil
Number of Rights	115,750	46,300	69,450	36,250	14,500	21,750
Price at grant (EUR)	2.36	2.36	2.36	2.63	2.63	2.63
Valuation per Tranche (EUR)	273,015	109,206	163,809	95,488	38,195	57,293

Share based payment expense (EUR)	1,352	970	713	1,018	731	537

In addition to remaining an employee on 31 December 2024, ADI performance rights were issued with the following vesting conditions:

Tranche 1

Tranche 1 will vest subject to various Project Milestones as follows (equal weighting):

- The Company has produced one tonne of lithium hydroxide at Vulcan's Central Lithium Electrolysis Optimization Plant (CLEOP);
- The Company has all permits necessary for the planned execution of phase 1 as per the Bridging Study;
- The Company has secured all land necessary for the interconnecting pipeline and power between Insheim and Schleidberg; D12 to 40 Morgen and Trappelberg;
- The Company has commenced 'shovel in the ground' construction of the Geothermal and Lithium Extraction Plant;
- The Company has completed drilling its first new well; and
- The Company has entered into binding and unconditional agreements to fully finance Phase 1 of its operations.

Tranche 2

Tranche 2 will vest subject ESG Milestones as follows (equal weighting):

- Environment: Meet 2024 HSE targets of long-term Injury frequency rate (LTIF) of 3.
- Social: Signing a binding agreement with a local utility to supply the local community with renewable heat in Phase One area.
- Governance:
 - no breaches with local authorities or regulatory authorities; and
 - no cyber security breaches during the period.

Tranche 3

Tranche 3 will vest subject to specific individual performance milestones.

Group CFO performance rights – multiplier

The number of performance rights issued to the Group CFO include a multiplier of 1.5x for the following milestones tested at the measurement date:

- The financing milestone (ADI); and
- If project construction is as per the Controlled Schedule (P50) (LTI).

Appropriate adjustments must be made should the multiplier(s) not be satisfied.

Details of the Executive LTIs are as follows:

Item	Executive Rights – LTI						
	Tranche 1	Tranche 2	Tranche 3	Tranche 4	Tranche 5	ATSR Rights	RSTR Rights
Grant date	24/06/2024	24/06/2024	24/06/2024	24/06/2024	24/06/2024	24/06/2024	24/06/2024
Fair value of each right (EUR)	2.36	2.36	2.36	2.36	2.36	1.69	1.79
Commencement of performance period	24/06/2024	24/06/2024	24/06/2024	24/06/2024	24/06/2024	24/06/2024	24/06/2024
Performance measurement date	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026
Vesting date	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026
Expiry date	31/12/2027	31/12/2027	31/12/2027	31/12/2027	31/12/2027	31/12/2027	31/12/2027
Volatility	n/a	n/a	n/a	n/a	n/a	70%	70%
Risk-free rate	n/a	n/a	n/a	n/a	n/a	3.93%	3.93%
Dividend yield	nil	nil	nil	nil	nil	nil	nil
Number of Rights	85,334	85,332	85,334	64,000	64,000	128,000	128,000
Price at grant (EUR)	2.36	2.36	2.36	2.36	2.36	2.36	2.36
Valuation per Tranche (EUR)	201,274	201,269	201,274	150,954	150,954	216,103	228,815

Share based payment expense (EUR)	644	644	322	483	483	1,383	1,464

Item	Group CFO Rights – LTI						
	Tranche 1	Tranche 2	Tranche 3	Tranche 4	Tranche 5	ATSR Rights	RTSR Rights
Grant date	17/06/2024	17/06/2024	17/06/2024	17/06/2024	17/06/2024	17/06/2024	17/06/2024
Fair value of each right (EUR)	2.63	2.63	2.63	2.63	2.63	1.88	2.14
Commencement of performance period	17/06/2024	17/06/2024	17/06/2024	17/06/2024	17/06/2024	17/06/2024	17/06/2024
Performance measurement date	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026
Vesting date	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026
Expiry date	31/12/2027	31/12/2027	31/12/2027	31/12/2027	31/12/2027	31/12/2027	31/12/2027
Volatility	n/a	n/a	n/a	n/a	n/a	70%	70%
Risk-free rate	n/a	n/a	n/a	n/a	n/a	3.79%	3.79%
Dividend yield	nil	nil	nil	nil	nil	nil	nil
Number of Rights	27,000	27,000	27,000	20,250	20,250	40,500	40,500
Price at grant (EUR)	2.63	2.63	2.63	2.63	2.63	2.63	2.63
Valuation per Tranche (EUR)	71,122	71,122	71,122	53,342	53,342	76,203	86,696

Share based payment expense (EUR)	492	492	246	369	369	1,255	1,422

In addition to remaining an employee on 31 December 2026, LTI performance rights were issued with the following vesting conditions:

Business Returns

Tranche 1

Tranche 1 will vest subject to project construction and execution of the Central Lithium Plant being as per the Controlled Schedule (P50).

Tranche 2

Tranche 2 will vest subject to delivering CAPEX as per Phase 1 bridging phase (as aligned with BNPP financing package) and assumptions.

Tranche 3

Tranche 3 will vest subject to obtaining Project Financing for Phase Two capital expenditure.

Sustainability Returns

Tranche 4:

Tranche 4 will vest subject to achieving financing with ESG criteria and successfully executing all ESMP (Environmental, Social management Plan) requirements.

Tranche 5

Tranche 5 will vest subject to setting a public announced GHG emissions target (linked to a credible framework such as Science Based Targets) and meet the target within timeline and volume of reduction requirements.

Market Based Measurements

ATSR Rights:

The number of Absolute TSR Rights ("ATSR Rights") that vest is based on the TSR of Vulcan over the performance period. The ATSR Rights will vest according to the following schedule:

Company's TSR performance	Percentage of ATSR Rights eligible to vest
< 7.5%	Nil
Between 7.5% and 10%	50% to 74% on a pro-rata basis
Between 10% and 12.5%	75% to 99% on a pro-rata basis
> 12.5%	100%

RTSR Rights:

The number of RTSR Rights that vest is based on the TSR of Vulcan over the performance period, relative to the returns of the Peer Group. The RTSR Rights will vest according to the following schedule.

Company's TSR performance relative to the Peer Group	Percentage of RTSR Rights eligible to vest
Less than 50th percentile	0%
Between 50th percentile and 75th percentile	50% - 99% Pro-rata
Greater than 75th percentile	100%

Set out below are summaries of performance right movements during the period:

	As at 1 January 2024	Granted	Exercised	Cancelled or forfeited	As at 30 June 2024	Exercisable performance rights
Class S	12,894	-	-	-	12,894	12,894
Class T	260,000	-	-	-	260,000	-
Class U	250,000	-	-	-	250,000	-
Class V	110,000	-	-	-	110,000	-
Class Y	60,000	-	(60,000)	-	-	-
Class Z	50,000	-	-	-	50,000	-
Class AA	37,232	-	-	(10,329)	26,903	26,903
Class AB	274,200	-	-	(65,000)	209,200	-
Class AC	28,474	-	(9,490)	(9,492)	9,492	-
Class IP	360,520	1,600,160	-	(154,850)	1,805,830	-
Class AE	82,714	-	(41,357)	-	41,357	-
Class AD	25,234	-	-	-	25,234	8,411
	1,551,268	1,600,160	(110,847)	(239,671)	2,800,910	48,208

No performance rights expired during the period.

NOTE 17 COMMITMENTS

Below are the commitments in relation to capital expenditure:

	30 Jun 2024 €'000	31 Dec 2023 €'000
Within one year	21,121	22,472
One to five years	310	-
	21,431	22,472

NOTE 18 CONTINGENCIES

The Group has given bank guarantees as at 30 June 2024 of €1,045,000 (31 December 2023: €958,000)

The Group has no contingent assets and liabilities as at 30 June 2024 (30 December 2023 : nil).

NOTE 19 DIVIDENDS

No dividend has been declared or paid during the interim period ended 30 June 2024 (31 December 2023: Nil), and the Directors do not recommend the payment of a dividend in respect of the half-year ended 30 June 2024.

NOTE 20 EVENTS AFTER THE REPORTING DATE

On 19 July 2024, the Company received the grant of its first lithium and geothermal energy licences in the Alsace region of France. The licences are located in the Mulhouse, Alsace region on the French side of the URVBF, which accounts for roughly one third of the Upper Rhine Graben, containing both geothermal energy and lithium-rich brine. The licence area of 463km² expands Vulcan's total licence area from 1,771km² to 2,234km² in the URVBF between Germany and France, with the Company commencing discussions with potential investment partners relating to its French licences in the intervening period.

Vulcan appointed leading global financial institution, Natixis CIB, as its ESG Coordinator, on 31 July 2024, with an aim to secure the first ever certification for "financing with green enabling features". The financing is structured to be labelled as "green", in line with the Loan Market Association's Green Loan Principles and the International Capital Market Association (ICMA) Green Enabling Projects Guidance.

On 8 August 2024, Vulcan announced the start of commissioning at the Company's 100%-owned lithium hydroxide optimisation plant, designated CLEOP. The facility is located just outside of Frankfurt, in the Höchst Chemical Park, where Vulcan will also construct its commercial Central Lithium Plant (CLP). The main building and utility systems are now complete, allowing first energisations to take place, and power is being fed to the plant through the main switchboard, a critical step for the electrolysis plant

Apart from the above, no other matter or circumstance has arisen since 30 June 2024 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

Directors' Declaration

In the Directors' opinion:

- the attached financial statements and notes comply with the Corporations Act 2001, Australian Accounting Standard AASB 134 'Interim Financial Reporting', the Corporations Regulations 2001 and other mandatory professional reporting requirements;
- the attached financial statements and notes give a true and fair view of the consolidated entity's financial position as at 30 June 2024 and of its performance for the half-year ended on that date; and
- there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The declaration is made in accordance with a resolution of the Board of Directors made pursuant to section 303(5)(a) of the *Corporations Act 2001*.

On behalf of the Directors



Dr Francis Wedin
Executive Chair

12 September 2024

17.2 Consolidated Annual Financial Statements 2023

17.2.1 Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the short financial year ended 31 December 2023

	Note	12-months 31 Dec 2023 €'000	6-months 31 Dec 2022 €'000
Revenue from continuing operations	4	6,783	3,622
Other income	5	1,191	213
Gain on discontinuation of use of the equity method of accounting for investments	29	3,874	-
Loss from equity accounted investments	29	(456)	(249)
Other own work capitalised	5	18,877	3,489
Raw materials and purchased services		(2,593)	(3,119)
Employee benefit expenses		(30,170)	(8,097)
Depreciation and amortisation expenses	6	(5,869)	(2,299)
Impairment expenses	18	(1,144)	-
Share-based payments expense	36	(1,688)	(711)
Other expenses		(21,294)	(6,735)
Net foreign exchange gain/(loss)	33	299	(105)
Finance income		3,558	615
Interest expense		(172)	(177)
Loss before income tax expense	8	(28,804)	(13,553)
Income tax benefit		1,841	103
Loss after income tax for the year/period		(26,963)	(13,450)
Other comprehensive income			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations		(2,444)	(1,648)
<i>Items that will not be reclassified subsequently to profit or loss</i>			
Revaluation of investments at fair value through other comprehensive income		(1,870)	-
Total comprehensive loss for the year/period (net of tax)		(31,277)	(15,098)
Total comprehensive loss for the period attributable to the owners of Vulcan Energy Resources Limited		(31,277)	(15,098)
Loss per share for the year attributable to the members Vulcan Energy Resources Limited:			
		€	€
Basic loss per share (Euro)	9	(0.17)	(0.09)
Diluted loss per share (Euro)	9	(0.17)	(0.09)

17.2.2 Consolidated Statement of Financial Position

As at 31 December 2023

	Note	31 Dec 2023 €'000	31 Dec 2022 €'000
Assets			
Current assets			
Cash and cash equivalents	10	78,728	134,107
Trade and other receivables	11	6,899	6,316
Contract assets	12	117	42
Inventories	13	327	155
Total current assets		86,071	140,620
Non-current assets			
Investments accounted for using equity method	29	124	974
Financial assets at fair value through other comprehensive income	30	2,550	-
Exploration and evaluation expenditure	15	48,475	30,135
Other assets	14	11,775	770
Property, plant, and equipment	16	138,605	70,280
Right-of-use assets	17	4,416	3,377
Intangible assets	18	1,655	3,068
Deferred tax assets	19	3,212	1,681
Total non-current assets		210,812	110,285
Total Assets		296,883	250,135
Liabilities			
Current liabilities			
Trade and other payables	20	17,194	9,418
Derivative financial instrument	21	133	-
Employee benefits	22	1,509	752
Lease liabilities	17	1,086	646
Provisions	24	750	-
Income tax liabilities	8(d)	113	91
Deferred income	23	-	132
Total Current liabilities		20,785	11,039
Non-current liabilities			
Lease liabilities	17	3,325	2,670
Provisions	24	264	110
Deferred income	23	2,818	1,453
Deferred tax liabilities	25	1,410	1,702
Total non-current liabilities		7,817	5,935
Total Liabilities		28,602	16,974
Net Assets		268,281	233,161
Equity			
Share capital	27	323,739	259,158
Reserves	28	13,377	15,875
Accumulated losses	41	(68,835)	(41,872)
Total Equity		268,281	233,161

17.2.3 Consolidated Statement of Changes in Equity

For the financial year ended 31 December 2023

Consolidated	Issued Capital €'000	Revaluation Reserve €'000	Reserves €'000	Foreign Currency Reserve €'000	Accumulated Losses €'000	Total €'000
At 1 July 2022	258,933	-	8,995	7,817	(28,422)	247,323
Loss for the period	-	-	-	-	(13,450)	(13,450)
Other comprehensive loss	-	-	-	(1,648)	-	(1,648)
Total comprehensive loss for the period after tax	-	-	-	(1,648)	(13,450)	(15,098)
Transactions with owners in their capacity as owners:						
Issue of share capital	225	-	-	-	-	225
Share issue costs	-	-	-	-	-	-
Share-based payments (note 36)	-	-	711	-	-	711
At 31 December 2022	259,158	-	9,706	6,169	(41,872)	233,161
At 1 January 2023	259,158	-	9,706	6,169	(41,872)	233,161
Loss for the year	-	-	-	-	(26,963)	(26,963)
Other comprehensive loss, net of tax	-	(1,870)	-	(2,444)	-	(4,314)
Total comprehensive loss for the year after tax	-	(1,870)	-	(2,444)	(26,963)	(31,277)
Transactions with owners in their capacity as owners:						
Issue of share capital	67,350	-	-	-	-	67,350
Share issue costs	(2,769)	-	-	-	-	(2,769)
Share-based payments (note 36)	-	-	1,816	-	-	1,816
Balance at 31 December 2023	323,739	(1,870)	11,522	3,725	(68,835)	268,281

The Consolidated Statement of Changes in Equity should be read in conjunction with the notes to the financial statements.

17.2.4 Consolidated Statement of Cash Flows

For the financial year ended 31 December 2023

	Note	12-months 31 Dec 2023 €'000	6-months 31 Dec 2022 €'000
Cash flows from operating activities			
Receipts from customers		8,315	3,496
Payments to suppliers and employees		(37,711)	(12,941)
Interest received		3,359	468
Other income		2,424	1,798
Interest paid		(172)	(239)
Income taxes paid		(546)	-
Net cash used in operating activities	10	(24,331)	(7,418)
Cash flows from investing activities			
Payments for exploration and evaluation expenditure		(19,003)	(10,429)
Payments for Property, plant, and equipment		(73,629)	(20,094)
Payment to acquire subsidiary	32	(150)	-
Cash acquired upon acquisition of subsidiary	32	35	-
Receipts from sale/ (Payments to acquire) financial assets		287	(1,245)
Net cash used in investing activities		(92,460)	(31,768)
Cash flows from financing activities			
Proceeds from issue of shares		67,350	-
Share issue costs		(2,770)	-
Repayment of loan acquired in business combinations		(81)	-
Lease repayments		(1,744)	(462)
Net cash used in/from financing activities		62,755	(462)
Net increase/(decrease) in cash and cash equivalents		(54,036)	(39,648)
Cash and cash equivalents at beginning of the period/year		134,107	175,416
Effect of exchange rate fluctuations		(1,343)	(1,661)
Cash and cash equivalents at end of the period/year		78,728	134,107

17.2.5 Notes to the Consolidated Financial Statements

NOTE 1 SUMMARY OF MATERIAL ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of the financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

(a) Reporting Entity

Vulcan Energy Resources Limited (referred to as "Vulcan" or the "Company") is a company domiciled in Australia. The address of the Company's registered office and principal place of business is Level 2, 267 St Georges Terrace, Perth WA 6000. The consolidated financial statements of the Company as at and for the year ended 31 December 2023 comprise the Company and its subsidiaries (together referred to as the "consolidated entity" or the "Group"). The principal activity of the Group is geothermal energy and lithium exploration and production.

(b) Basis of Preparation

Statement of compliance

The consolidated financial statements are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") and the Corporations Act 2001. The consolidated financial statements comply with International Financial Reporting Standards ("IFRS") adopted by the International Accounting Standards Board ("IASB"). Vulcan Energy Resources Limited is a for-profit entity for the purpose of preparing the financial statements.

The annual report was authorised for issue by the Board of Directors on 27 March 2024.

Comparatives

The consolidated entity's current accounting period is the 12-months ended 31 December 2023, and the comparative is 6-month period due to the consolidated entity changing its accounting year end to a 31 December balance date.

Functional and presentation currency

Items included in the financial statements of each of the consolidated entities are measured using the currency of the primary economic environment in which the entity operates ("functional currency"). The consolidated financial statements are presented in Euro, which is Vulcan Energy Resources Limited's presentation currency.

Historical cost convention

The consolidated financial statements have been prepared under historical cost convention, except for, where applicable, the revaluation of financial assets at fair value through other comprehensive income, certain classes of property, plant and equipment and derivative financial instruments.

Parent entity information

In accordance with the Corporations Act 2001, these financial statements present the results of the consolidated entity only. Supplementary information about the parent entity is disclosed in Note 42.

Rounding of amounts

The company is of a kind referred to in Corporations Instrument 2016/191, issued by the Australian Securities and Investments Commission, relating to 'rounding-off'. Amounts in this report have been rounded off in accordance with that Corporations Instrument to the nearest thousand Euro, unless otherwise stated.

New or amended Accounting Standards and Interpretations adopted

The consolidated entity has adopted all the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period.

Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

Going concern

The consolidated financial statements have been prepared on the going concern basis, which contemplates continuity of normal business activities and the realisation of assets and discharge of liabilities in the normal course of business.

As disclosed in the consolidated financial statements, the Group incurred a loss after tax of €26.963m and had net cash outflows from operating and investing activities of €24.331m and €92.460m respectively for the year ended 31 December 2023. As at that date, the Group had a net current assets surplus of €65.286m and cash and cash equivalents of €78.728m.

The Directors believe that it is reasonably foreseeable that the consolidated entity will continue as a going concern and that it is appropriate to adopt the going concern basis in the preparation of the financial report after consideration of the following factors:

- The Group's ability to issue additional shares under the Corporation Act 2001 to raise further working capital. The Group has demonstrated its ability to raise capital from strategic and institutional investors, including over €320m raised through equity raisings in the past.
- Subsequent to the end of the year, the Group was advised by the European Investment Bank (EIB) that its Phase One Zero Carbon Lithium™ Project appears potentially suitable for EIB financing and the Project has advanced to the "Under Appraisal" stage.
- EIB's proposed financing could amount up to €500m (~A\$825m), pending completion of due diligence, credit approval and legal agreement, and subject to EIB's governing bodies approval.
- The group has already started its debt and project level equity financing process, supported by BNP Paribas, following positive market sounding in 2023 from commercial banks, development banks, and government-backed export credit agencies. This included a A\$200 million (~€120 million) non-binding Letter of Support from Export Finance Australia (EFA), and indication of strong ECA support from Canada, Italy, and France during 2023.

Current and non-current classification

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

Deferred tax assets and liabilities are always classified as non-current.

New standards and interpretations not yet mandatory or early adopted

Australian Accounting Standards and Interpretations relevant to the Group that have recently been issued or amended but are not yet mandatory, have not been adopted by the Group for the annual reporting year ended 31 December 2023. The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations but does not expect it to have a significant impact on the Group's results.

Significant Judgements and Estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the consolidated entity's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 2.

(c) Principles of Consolidation

Subsidiaries

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of Vulcan Energy Resources Limited ('Company' or 'parent entity') as at 31 December 2023 and the results of all subsidiaries for the year then ended.

Subsidiaries are all entities (including special purpose entities) over which the consolidated entity has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one-half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the consolidated entity controls another entity.

Subsidiaries are fully consolidated from the date on which control is transferred to the consolidated entity. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances, and unrealised gains on transactions between consolidated entity companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the consolidated entity.

The acquisition method of accounting is used to account for business combinations by the consolidated entity. A change in ownership interest, without the loss of control, is accounted for as an equity transaction, where the difference between the consideration transferred and the book value of the share of the non-controlling interest acquired is recognised directly in equity attributable to the parent.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of comprehensive income, statement of changes in equity and statement of financial position respectively.

Where the consolidated entity loses control over the subsidiary, it derecognises the assets including goodwill, liabilities and non-controlling interest in the subsidiary together with any cumulative transaction differences recognised in equity. The consolidated entity recognises the fair value of the consideration received and the fair value of any investment retained together with any gain or loss on profit or loss.

(d) Foreign Currency Transactions

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

(e) **Entity Functional Currency Different from Group Presentational Currency**

The assets and liabilities of entities with functional currency different from group presentational currency are translated into Euro using the exchange rates at the reporting date. The revenues and expenses of entities with functional currency different from group presentational currency are translated into Euro using the average exchange rates, which approximate the rates at the dates of the transactions, for the period. All resulting foreign exchange differences are recognised in other comprehensive income through the foreign currency reserve in equity.

NOTE 2 CRITICAL ACCOUNTING ESTIMATES, JUDGEMENTS AND ASSUMPTIONS

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue, and expenses.

Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions in these financial statements that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period are disclosed below.

Exploration and evaluation expenditure

Exploration and evaluation costs have been capitalised on the basis that the consolidated entity will commence commercial production in the future, from which time the costs will be amortised in proportion to the depletion of the mineral resources. Key judgements are applied in considering costs to be capitalised which includes determining expenditures directly related to these activities and allocating overheads between those that are expensed and capitalised. In addition, costs are only capitalised that are expected to be recovered either through successful development or sale of the relevant mining interest. Factors that could impact the future commercial production at the mine include the level of reserves and resources, future technology changes, which could impact the cost of mining, future legal changes and changes in commodity prices. To the extent that capitalised costs are determined not to be recoverable in the future, they will be written off in the period in which this determination is made.

Share-based payments

The Group measures the cost of equity settled transactions with Directors, employees and consultants, where applicable, by reference to the fair value of equity instruments at the date at which they are granted. The fair value is determined using an appropriate valuation model taking into account the terms and conditions upon which the instruments were granted. The accounting estimates and assumptions relating to equity-settled share-based payments would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact profit or loss and equity.

Estimation of useful lives of assets

The consolidated entity determines the estimated useful lives and related depreciation and amortisation charges for its plant and equipment. The useful lives could change significantly as a result of technical innovations or some other event. The depreciation and amortisation charge will increase where the useful lives are less than previously estimated lives, or technically obsolete or non-strategic assets that have been abandoned or sold will be written off or written down.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets

The consolidated entity assesses impairment of non-financial assets other than goodwill and other indefinite life intangible assets at each reporting date by evaluating conditions specific to the consolidated entity and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Income tax

The consolidated entity is subject to income taxes in the jurisdictions in which it operates. Significant judgement is required in determining the provision for income tax. There are many transactions and calculations undertaken during the ordinary course of business for which the ultimate tax determination is uncertain. The consolidated entity recognises liabilities for anticipated tax audit issues based on the consolidated entity's current understanding of the tax law. Where the final tax outcome of these matters is different from the carrying amounts, such differences will impact the current and deferred tax provisions in the period in which such determination is made.

Recovery of deferred tax assets

Deferred tax assets are recognised for deductible temporary differences only if the consolidated entity considers it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Lease term

The lease term is a significant component in the measurement of both the right-of-use asset and lease liability. Judgement is exercised in determining whether there is reasonable certainty that an option to extend the lease or purchase the underlying asset will be exercised, or an option to terminate the lease will not be exercised, when ascertaining the periods to be included in the lease term. In determining the lease term, all facts and circumstances that create an economical incentive to exercise an extension option, or not to exercise a termination option, are considered at the lease commencement date. Factors considered may include the importance of the asset to the consolidated entity's operations; comparison of terms and conditions to prevailing market rates; incurrence of significant penalties; existence of significant leasehold improvements; and the costs and disruption to replace the asset. The consolidated entity reassesses whether it is reasonably certain to exercise an extension option, or not exercise a termination option, if there is a significant event or significant change in circumstances.

Incremental borrowing rate

Where the interest rate implicit in a lease cannot be readily determined, an incremental borrowing rate is estimated to discount future lease payments to measure the present value of the lease liability at the lease commencement date. Such a rate is based on what the consolidated entity estimates it would have to pay a third party to borrow the funds necessary to obtain an asset of a similar value to the right-of-use asset, with similar terms, security, and economic environment.

NOTE 3 SEGMENT INFORMATION

Accounting Policy

Segment Reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board. Management has determined that based on the report reviewed by the Board and used to make strategic decisions, that the consolidated entity has three reportable segments.

Identification of reportable operating segments

The consolidated entity is organised into three operating segments based on geographical location: Germany, Other European countries (comprised of France and Italy) and Australia. These operating segments are based on the internal reports that are reviewed and used by the Executive Key Management Personnels (who are identified as the Chief Operating Decision Makers (CODM)) in assessing performance and in determining the allocation of resources. There is no aggregation of operating segments.

The CODM reviews EBITDA (earnings before interest, tax, depreciation, and amortisation). The accounting policies adopted for internal reporting to the CODM are consistent with those adopted in the financial statements.

The information reported to the CODM is on a monthly basis.

Types of products and services

Germany – the supply of geothermal energy, exploration and development related to the Zero Carbon Lithium™ Project and engineering services.

Other European countries (France and Italy) – exploration and development relating to battery materials and geothermal lithium.

Australia – administration and Definitive Feasibility Study (“DFS”) cost.

Intersegment transactions

Intersegment transactions were made at market rates. Engineering services have been provided within the German segment. All intersegment receivables and payables, including the profit margin, are eliminated on consolidation.

Major customers

During the financial year ended 31 December 2023, approximately €4m (six months ended 31 Dec 2022: €3.2m) of the consolidated entity’s external revenue was derived from sales to Pfalzwerke.

For the year ended 31 December 2023

Segment performance	Germany	Other European Countries	Australia	Total
1 Jan 2023 to 31 Dec 2023	€'000	€'000	€'000	€'000
Revenue				
Sales to external customers	6,783	-	-	6,783
Intersegment sales - Other own work capitalised	18,486	-	391	18,877
Total sales revenue	25,269	-	391	25,660
Other income	1,191	-	-	1,191
Total segment revenue	26,460	-	391	26,851
 EBITDA	(20,377)	(130)	(5,814)	(26,321)
Depreciation and amortisation	(5,814)	(2)	(53)	(5,869)
Finance expense	(164)	-	(8)	(172)
Interest income	1,181	-	2,377	3,558
Loss before income tax expense	(25,174)	(132)	(3,498)	(28,804)
Income tax benefit	1,841	-	-	1,841
Loss after income tax expense	(23,333)	(132)	(3,498)	(26,963)
Material items include:				
Employee benefit expense	(28,069)	(95)	(2,006)	(30,170)
Impairment	(1,144)	-	-	(1,144)
Loss from equity accounted investments	-	-	(456)	(456)
Gain on discontinuing of use of equity method for accounting for investments	-	-	3,874	3,874

	Germany €'000	Other European Countries €'000	Australia €'000	Total €'000
Assets				
Segment assets	223,333	433	305,364	529,130
Intersegment eliminations				(232,247)
Total assets				296,883
Total assets include:				
Investments accounted for using equity method	-	-	124	124
Exploration and evaluation expenditure additions	16,591	98	2,087	18,776
Additions to property, plant and equipment	71,657	-	-	71,657
Liabilities				
Segment liabilities	33,776	466	1,183	35,425
Intersegment eliminations				(6,823)
Total Liabilities				28,602

For the 6 months ended 31 December 2022

Segment performance	Germany	Other European Countries	Australia	Total
1 Jan 2023 to 31 Dec 2023	€'000	€'000	€'000	€'000
Revenue				
Sales to external customers	3,622	-	-	3,622
Intersegment sales - Other own work capitalised	3,489	-	-	3,489
Total sales revenue	7,111	-	-	7,111
Other income	213	-	-	213
Total segment revenue	7,324	-	-	7,324
EBITDA	(6,941)	-	(4,751)	(11,692)
Depreciation and amortisation	(2,285)	-	(14)	(2,299)
Finance expense	(62)	-	(115)	(177)
Interest income	155	-	460	615
Loss before income tax expense	(9,133)	-	(4,420)	(13,553)
Income tax benefit	103	-	-	103
Loss after income tax expense	(9,030)	-	(4,420)	(13,450)
Material items include:				
Employee benefit expense	(7,334)	-	(763)	(8,097)
Impairment	-	-	(711)	(711)
Loss from equity accounted investments	-	-	(249)	(249)

	Germany €'000	Other European Countries €'000	Australia €'000	Total €'000
Assets				
Segment assets	164,779	195	425,784	590,758
Intersegment eliminations				(340,623)
Total assets				250,135
Total assets include:				
Investments accounted for using equity method	-	-	974	974
Exploration and evaluation expenditure additions	4,463	32	5,675	10,170
Additions to property, plant and equipment	20,304	-	-	20,304
Liabilities				
Segment liabilities	21,881	103	176,578	198,562
Intersegment eliminations				(181,588)
Total Liabilities				16,974

NOTE 4 REVENUE

	12-months 31-Dec-23 €'000	6-months 31-Dec-22 €'000
Revenue from contract with customers		
Sale of goods	4,036	3,128
Rendering of services	134	494
Drilling Personnel outsourcing	2,613	-
	<u>6,783</u>	<u>3,622</u>
Revenue from continuing operations	<u>6,783</u>	<u>3,622</u>

	Electricity sales		Engineering Services		Drilling Services		Total	
	12-mths 31-Dec-23 €'000	6-mths 31-Dec-22 €'000	12-mths 31-Dec-23 €'000	6-mths 31-Dec-22 €'000	12-mths 31-Dec-23 €'000	6-mths 31-Dec-22 €'000	12-mths 31-Dec-23 €'000	6-mths 31-Dec-22 €'000
Timing of revenue recognition								
Goods transferred at a point in time	4,036	3,128	-	-	-	-	4,036	3,128
Services transferred over time	-	-	134	494	2,613	-	2,747	494
	<u>4,036</u>	<u>3,128</u>	<u>134</u>	<u>494</u>	<u>2,613</u>	<u>-</u>	<u>6,783</u>	<u>3,622</u>

All revenues are derived in Germany.

Accounting Policy

The consolidated entity recognises revenue as follows:

Revenue from contracts with customers

Revenue is recognised at an amount that reflects the consideration to which the consolidated entity is expected to be entitled in exchange for transferring goods or services to a customer. For each contract with a customer, the consolidated entity: identifies the contract with a customer; identifies the performance obligations in the contract; determines the transaction price which takes into account estimates of variable consideration and the time value of money; allocates the transaction price to the separate performance obligation on the basis of the relative stand-alone selling price of each distinct good or service to be delivered ; and recognises revenue when or as each performance obligation is satisfied in a manner that depicts the transfer to the customer of the goods and services promised.

Variable consideration within the transaction price, if any, reflects concessions provided to the customer such as discounts, rebates and refunds, any potential bonuses receivable from the customer and any other contingent events. Such estimates are determined using either the 'expected value' or 'most likely amount' method. The measurement of variable consideration is subject to a constraining principle whereby revenue will only be recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. The measurement constraint continues until the uncertainty associated with the variable

consideration is subsequently resolved. Amounts received that are subject to the constraining principle are recognised as a refund liability.

Sale of goods

Revenue from the sale of goods is recognised at the point in time when the customer obtains control of the goods, which is generally at the time of delivery.

Rendering of services

Revenue from a contract to provide services is recognised over time as the services are rendered based on either a fixed price or an hourly rate.

NOTE 5 OTHER INCOME

	12-months 31-Dec-23 €'000	6-months 31-Dec-22 €'000
Government grants	532	151
Other income	659	37
Reversal of provision for expected credit losses	-	25
	<u>1,191</u>	<u>213</u>

	12-months 31-Dec-23 €'000	6-months 31-Dec-22 €'000
Other own work capitalised	<u>18,877</u>	<u>3,489</u>
	<u>18,877</u>	<u>3,489</u>

Accounting Policy

Other revenue

Other revenue is recognised when it is received or when the right to receive payment is established.

Other own work capitalised

Vulcan Energy Engineering GmbH and Vulcan Energy Subsurface Solutions GmbH provide services to Vulcan Energie Ressourcen GmbH, a wholly owned subsidiary of Vulcan Energy Resources Limited which have been capitalised to exploration and evaluation expenditure and property, plant, and equipment. These services are disclosed in the statement of profit or loss and other comprehensive income as other own work capitalised. The expenses incurred by Vulcan Energy Engineering GmbH and Vulcan Energy Subsurface Solutions GmbH to provide these services are disclosed in the statement of profit or loss and other comprehensive income as employee benefit expenses. Other own work capitalised also includes the capitalisation of Vercana GmbH staff costs relating to the refurbishment of electric drill rigs, Vulcan Energie Ressourcen GmbH staff costs capitalised to various projects and partial capitalisation of Managing Director employed by Vulcan Energy Resources Limited.

Other own work capitalised does not relate to any external revenue or any profit margin charge to intercompany transactions.

NOTE 6 DEPRECIATION AND AMORTISATION EXPENSE

	12-months 31-Dec-23 €'000	6-months 31-Dec-22 €'000
Depreciation of Right-of-use assets	1,826	385
Depreciation of Property, Plant and Equipment	3,387	1,349
Amortisation of intangible assets	656	565
	<u>5,869</u>	<u>2,299</u>

NOTE 7 FINANCE INCOME/(COST)

Finance Income

	12-months 31-Dec-23 €'000	6-months 31-Dec-22 €'000
Interest income	3,558	615
	<u>3,558</u>	<u>615</u>

Accounting Policy

Interest

Interest revenue is recognised as interest accrues.

Finance cost

	12-months 31-Dec-23 €'000	6-months 31-Dec-22 €'000
Interest expense- cash at bank and deposits	-	(115)
Interest expense- lease liabilities	(172)	(62)
	<u>(172)</u>	<u>(177)</u>

Accounting Policy

Finance costs

Finance costs attributable to qualifying assets are capitalised as part of the asset. All other finance costs are expensed in the period in which they are incurred.

NOTE 8 INCOME TAX

	12-months 31-Dec-23 €'000	6-months 31-Dec-22 €'000
(a) The components of tax expense comprise:		
Current tax	106	(369)
Deferred tax	(1,947)	266
Income tax expense reported in the of profit or loss and other comprehensive income	<u>(1,841)</u>	<u>(103)</u>

(b) The prima facie tax on loss from ordinary activities before income tax is reconciled to the income tax as follows:

Loss before income tax expense	(28,804)	(13,553)

Prima facie tax benefit on loss before income tax at 30% (31 December 2022: 30%)	(8,641)	(4,066)
Tax effect of amounts that are not deductible/taxable in calculating taxable income		
Non-deductible expense	615	323
Tax losses and temporary differences not brought to account	3,468	2,394
Foreign corporate rate differential	2,717	1,246
Income tax benefit	<u>(1,841)</u>	<u>(103)</u>

c) Deferred tax assets/(liabilities) not brought to accounts are:

Accruals	104	104
Prepayments	74	74
Other	1,837	1,837
Tax losses	<u>5,122</u>	<u>5,122</u>
Total deferred tax balances not brought to account	<u>7,137</u>	<u>7,137</u>

- d) As at 31 December 2023, the consolidated entity has income tax payable of €113,000 (31 Dec 2022: €91,000).

Except for the deferred tax assets (note 19) and deferred tax liabilities (note 25) recognised in the subsidiary, Natürlich Insheim GmbH, potential deferred tax assets attributable to tax losses and other temporary differences have not been brought to account at 31 December 2023 because the directors do not believe it is appropriate to regard realisation of the deferred tax assets as probable at this point in time.

These benefits will only be obtained if:

- The consolidated entity derives future assessable income of a nature and of an amount sufficient to enable the benefit from the deductions for the expenditure to be realised; and
- No changes in tax legislation adversely affect the consolidated entity in realising the benefit from the deductions for the expenditure.

Accounting Policy

The income tax expense (revenue) for the year comprises current income tax expense (income) and deferred tax expense (income).

Current Tax

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

Deferred Tax

Deferred tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year as well as unused tax losses.

Current and deferred income tax expense (income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

Deferred tax assets and liabilities are ascertained based on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets also result where amounts have been fully expensed but future tax deductions are available. No deferred income tax will be

recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax assets and liabilities are calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates enacted or substantively enacted at the end of the reporting period. Their measurement also reflects the manner in which management expects to recover or settle the carrying amount of the related asset or liability.

Deferred tax assets relating to temporary differences and unused tax losses are recognised only to the extent that it is probable that future taxable profit will be available against which the benefits of the deferred tax asset can be utilised.

Where temporary differences exist in relation to investments in subsidiaries, branches, associates, and joint ventures, deferred tax assets and liabilities are not recognised where the timing of the reversal of the temporary difference can be controlled and it is not probable that the reversal will occur in the foreseeable future.

Current tax assets and liabilities are offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities are offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

NOTE 9 LOSS PER SHARE

	12-months 31 Dec 2023	6-months 31 Dec 2022
Net loss for the year €'000	(26,963)	(13,450)
Weighted average number of ordinary shares for basic and diluted loss per share	159,325,357	143,332,764
Basic and diluted loss per share (Euro)	(0.17)	(0.09)

Accounting Policy

Basic Loss Per Share

Basic loss per share is determined by dividing net profit or loss after income tax attributable to members of the Company, excluding any costs of servicing equity other than ordinary shares, by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the year.

Diluted Loss Per Share

Diluted loss per share adjusts the figures used in the determination of basic earnings per share to take into account the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential ordinary shares.

NOTE 10 CASH AND CASH EQUIVALENTS

	31 Dec 2023 €'000	31 Dec 2022 €'000
Cash at bank and in hand	23,915	12,515
Short-term deposits	54,813	121,592
	<u>78,728</u>	<u>134,107</u>
Reconciliation of net loss after tax to net cash flows from operations		
	12-months 31 Dec 2023 €'000	6-months 31 Dec 2022 €'000
Loss for the financial year/period	(26,963)	(13,450)
Share based payment expense	1,688	711
Impairment expenses	1,144	-
Depreciation and amortisation expense	5,869	2,299
Shares issued in exchange for services	-	225
Gain on discontinuation of use of the equity method of accounting for investments	(3,874)	-
Loss from equity accounted investments	456	249
Foreign exchange differences	-	394
Changes in assets/liabilities		
Increase in trade and other receivables	(787)	(1,041)
(Decrease)/Increase in trade and other payables	(1,702)	3,339
Increase/(Decrease) in provisions	1,661	(144)
Increase in deferred tax assets	(1,531)	-
Decrease in deferred tax liabilities	(292)	-
Net cash used in operating activities	<u>(24,331)</u>	<u>(7,418)</u>

Accounting Policy

Cash and cash equivalents

Cash at bank earns interest at floating rates based on daily deposit rates. Short-term deposits are made in varying periods between one day and three months, depending on the immediate cash requirements of the Group and earn interest at the respective short-term deposit rates.

NOTE 11 TRADE AND OTHER RECEIVABLES

	31 Dec 2023 €'000	31 Dec 2022 €'000
Trade receivables	608	1,296
Allowance for expected credit losses	-	(34)
Prepayments	712	273
Other receivables	2,061	2,766
Other - bank guarantees	958	1,245
VAT receivable	2,560	-
	<u>6,899</u>	<u>5,546</u>

	Expected credit loss rate		Carrying amount		Allowance for ECL	
	31 Dec 2023	31 Dec 2022	31 Dec 2023	31 Dec 2022	31 Dec 2023	31 Dec 2022
Consolidated	%	%	€'000	€'000	€'000	€'000
not overdue	0%	0%	608	1,228	-	-
overdue	50%	50%	-	68	-	34
			<u>608</u>	<u>1,296</u>	<u>-</u>	<u>34</u>

Allowance for expected credit loss

Trade receivables are non-interest bearing and are generally on terms of 30 days. No provision has been recognised for the year (31 Dec 2022: €34,000) to cover expected credit loss .

Accounting Policy

Trade and other receivables

Trade and other receivables include amounts due from customers for goods sold and services performed in the ordinary course of business. Trade and other receivables are initially recognised at fair value and subsequently measured at amortised cost using effective interest method less any allowance for expected credit loss. Receivables expected to be collected within 12 months of the end of the reporting period are classified as current assets.

Goods and Services Tax ('GST')

Revenues, expenses, and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset, of the assets or part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position.

Commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to, the tax authority. Cash flows are presented in the statement of cash flows on a gross basis, except for the GST on investing and financial activities, which are disclosed as operating cash flows.

Value Added Tax ("VAT")

Revenues expenses and assets are recognised net of VAT, except where the amount of VAT incurred is not recoverable from the German tax authority. In these circumstances the VAT is recognised as part of the cost of acquisition or parts of the expense. Receivables and payables are stated inclusive of the amount of VAT receivable

or payable. The net amount of VAT recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position. Cash flows are presented in the statement of cash flows on a gross basis, except for the VAT on investing and financial activities, which are disclosed as operating cash flows.

Impairment of financial assets

The consolidated entity recognises a loss allowance for expected credit losses on financial assets which are either measured at amortised cost or fair value through other comprehensive income. The measurement of the loss allowance depends upon the consolidated entity's assessment at the end of each reporting period as to whether the financial instrument's credit risk has increased significantly since initial recognition, based on reasonable and supportable information that is available, without undue cost or effort to obtain.

Where there has not been a significant increase in exposure to credit risk since initial recognition, a 12-month expected credit loss allowance is estimated. This represents a portion of the asset's lifetime expected credit losses that is attributable to a default event that is possible within the next 12 months. Where a financial asset has become credit impaired or where it is determined that credit risk has increased significantly, the loss allowance is based on the asset's lifetime expected credit losses. The amount of expected credit loss recognised is measured on the basis of the probability weighted present value of anticipated cash shortfalls over the life of the instrument discounted at the original effective interest rate.

NOTE 12 CONTRACT ASSETS

	31 Dec 2023 €'000	31 Dec 2022 €'000
Contract assets	117	42
	117	42

Reconciliation of the written down values at the beginning and end of the current and previous financial year are set out below

	31 Dec 2023 €'000	31 Dec 2022 €'000
Opening balance	42	79
transfer from/(to) inventory	75	(37)
Closing balance	117	42

Accounting policy

Contract assets

Contract assets are recognised when the consolidated entity has transferred goods and services to the customer but where the consolidated entity is yet to establish an unconditional right to consideration. Contract assets are treated as financial assets for impairment purposes.

NOTE 13 INVENTORIES

	31 Dec 2023 €'000	31 Dec 2022 €'000
Spare parts	327	155
	327	155

Accounting policy

Inventories

Raw materials, work in progress and finished goods are stated at the lower of cost and net realisable value on a "first in first out" basis. Cost comprises of direct materials and delivery costs, direct labour, import duties and other taxes, an appropriate proportion of variable and fixed overhead expenditure based on normal operating

capacity, and, where applicable transfers from cash flow hedging reserves in equity. Costs of purchased inventory is determined after deducting rebates and discounts received or receivable.

NOTE 14 OTHER ASSETS

The group has recognised the following other assets relating to prepayments on capital items.

	31 Dec 2023 €'000	31 Dec 2022 €'000
Prepayments relating to capital items	11,775	770
	11,775	770

NOTE 15 EXPLORATION AND EVALUATION EXPENDITURE

	31 Dec 2023 €'000	31 Dec 2022 €'000
Carrying amount of exploration and evaluation expenditure	48,475	30,135
At the beginning of the year/period	30,135	20,440
Exploration expenditure incurred	18,776	10,400
Foreign exchange Loss	(436)	(705)
At the end of the year	48,475	30,135

Accounting Policy

Exploration and evaluation expenditure

Acquisition, exploration, and evaluation costs associated with mining tenements are accumulated in respect of each identifiable area of interest. These costs are only carried forward to the extent that the rights of tenure to that area of interest are current and that the costs are expected to be recouped through the successful commercial development or sale of the area or where activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves.

Costs in relation to an abandoned area are written off in full against profit in the period in which the decision to abandon the area is made.

Each area of interest is also reviewed annually, and acquisition costs written off to the extent that they will not be recoverable in the future.

NOTE 16 PROPERTY, PLANT AND EQUIPMENT

	31 Dec 2023 €'000	31 Dec 2022 €'000
Software	655	383
Plant & Equipment	26,188	27,411
Land & Buildings	4,659	1,536
Assets under Construction	107,103	40,950
	138,605	70,280

Movement in carrying amounts of property, plant and equipment for the financial year ended 31 December 2023.

	Software €'000	Plant and equipment €'000	Asset under construction €'000	Land and Building €'000	Total €'000
Cost					
At 1 January 2023	417	30,623	40,950	1,623	73,613
Additions	328	1,955	66,163	3,211	71,657
Disposals	-	(10)	(10)	-	(20)
Acquired in Business Combinations	36	39	-	-	75
At 31 December 2023	781	32,607	107,103	4,834	145,325
	417	30,623	40,950	1,623	73,613
Accumulated Depreciation					
At 1 January 2023	(34)	(3,212)	-	(87)	(3,333)
Depreciation for the year	(56)	(3,201)	-	(88)	(3,345)
Depreciation eliminated on disposal	-	10	-	-	10
Acquired in Business Combinations	(36)	(16)	-	-	(52)
At 31 December 2023	(126)	(6,419)	-	(175)	(6,720)
Carrying amount					
At 1 January 2023	383	27,411	40,950	1,536	70,280
At 31 December 2023	655	26,188	107,103	4,659	138,605

Movement in carrying amounts of property, plant, and equipment for period ended 31 December 2022.

	Software	Plant and equipment	Asset under construction	Land and Building	Total
	€'000	€'000	€'000	€'000	€'000
Cost					
At 1 July 2022	280	28,817	22,784	1,623	53,504
Additions	137	2,001	18,166	-	20,304
Disposals	-	(13)	-	-	(14)
At 31 December 2022	417	30,623	40,950	1,623	73,613
Accumulated Depreciation					
At 1 July 2022	(13)	(1,958)	-	(43)	(2,014)
Depreciation for the period	(21)	(1,284)	-	(44)	(1,349)
Depreciation eliminated on disposal	-	30	-	-	30
At 31 December 2022	(34)	(3,212)	-	(87)	(3,333)
Carrying amount					
At 1 July 2022	267	26,859	22,784	1,580	51,490
At 31 December 2022	383	27,411	40,950	1,536	70,280

Accounting Policy

Property, plant, and equipment

Property, plant, and equipment is stated at historical cost less accumulated depreciation and impairment. Historical cost includes expenditure that is directly attributable to the acquisition of the items

Once assets are available for use, depreciation is calculated using the straight-line method to allocate asset costs over their estimated useful lives, as follows:

Software	3 -5 years
Plant & Equipment	2-20 years
Buildings	20 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

NOTE 17 LEASE LIABILITIES & RIGHT-OF-USE ASSETS

Right-of-use asset	Buildings	Vehicles	Hardware and Software	Technical Equipment	Land	Total
	€'000	€'000	€'000	€'000	€'000	€'000
Cost						
At 1 January 2023	3,400	512	21	14	23	3,970
Additions	2,210	498	24	27	283	3,042
Acquired in Business Combinations	-	33	-	-	-	33
Disposals	(71)	(89)	(30)	-	-	(190)
At 31 December 2023	5,539	954	15	41	306	6,855
Accumulated Depreciation						
At 1 January 2023	(422)	(148)	(15)	(3)	(5)	(593)
Depreciation for the period	(1,444)	(442)	(30)	(36)	(35)	(1,987)
Eliminated on cancellation	42	89	30	-	-	161
FX loss	(20)	-	-	-	-	(20)
	(1,844)	(501)	(15)	(39)	(40)	(2,439)
Carrying amount						
At 1 January 2023	2,978	364	6	11	18	3,377
At 31 December 2023	3,695	453	-	2	266	4,416

Right-of-use asset	Buildings €'000	Vehicles €'000	Hardware and Software €'000	Technical Equipment €'000	Land €'000	Total €'000
Cost						
At 1 July 2022	2,908	261	21	-	-	3,190
Additions	492	251	-	14	23	780
At 31 December 2022	3,400	512	21	14	23	3,970
Accumulated Depreciation						
At 1 July 2022	(107)	(83)	(10)	-	-	(200)
Depreciation for the period	(307)	(65)	(5)	(3)	(5)	(385)
Foreign Exchange Gain/(Loss)	(8)	-	-	-	-	(8)
	(422)	(148)	(15)	(3)	(5)	(593)
Carrying amount						
At 1 July 2022	2,801	178	11	-	-	2,990
At 31 December 2022	2,978	364	6	11	18	3,377
Lease Liabilities	Buildings €'000	Vehicles €'000	Hardware and Software €'000	Technical Equipment €'000	Land €'000	Total €'000
At 1 January 2023	3,020	263	6	9	18	3,316
New lease liabilities entered during the period	2,156	376	(6)	27	283	2,836
Acquired in business combinations	-	33	-	-	-	33
Add: Interest	147	19	-	-	5	171
Less: Payment	(1,480)	(363)	-	(35)	(38)	(1,916)
Foreign exchange loss	(29)	-	-	-	-	(29)
At 31 December 2023	3,814	328	-	1	268	4,411
Represented by:						
Current lease liabilities	792	236	-	1	57	1,086
Non-current lease liabilities	3,022	92	-	-	211	3,325
	3,814	328	-	1	268	4,411

Lease Liabilities	Buildings	Vehicles	Hardware and Software	Technical Equipment	Land	Total
	€'000	€'000	€'000	€'000	€'000	€'000
At 1 July 2022	2,804	190	11	-	-	3,005
New lease liabilities entered during the period	492	248	-	13	23	776
Add: Interest	56	6	-	-	-	62
Less: Payment	(329)	(181)	(5)	(4)	(5)	(524)
Foreign Exchange Gain/(Loss)	(3)	-	-	-	-	(3)
At 31 December 2022	3,020	263	6	9	18	3,316

Represented by:

Current lease liabilities	506	115	6	8	11	646
Non-current lease liabilities	2,512	150	-	1	7	2,670
	3,018	265	6	9	18	3,316

Accounting Policy

Right-of-use assets:

A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and, except where included in the cost of inventories, an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Where the consolidated entity expects to obtain ownership of the leased asset at the end of the lease term, the depreciation is over its estimated useful life. Right-of use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

The consolidated entity has elected not to recognise a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of low-value assets. Lease payments on these assets are expensed to profit or loss as incurred.

Lease liabilities

A lease liability is recognised at the commencement date of a lease. The lease liability is initially recognised at the present value of the lease payments to be made over the term of the lease, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the consolidated entity's incremental borrowing rate. Lease payments comprise of fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be paid under residual value guarantees, exercise price of a purchase option when the exercise of the option is reasonably certain to occur, and any anticipated termination penalties. The variable lease payments that do not depend on an index or a rate are expensed in the period in which they are incurred.

Lease liabilities are measured at amortised cost using the effective interest method. The carrying amounts are remeasured if there is a change in the following: future lease payments arising from a change in an index or a

rate used; residual guarantee; lease term; certainty of a purchase option and termination penalties. When a lease liability is remeasured, an adjustment is made to the corresponding right-of use asset, or to profit or loss if the carrying amount of the right-of-use asset is fully written down.

The Group leases office space, a laboratory, vehicles and land through its German subsidiary Vulcan Energie Ressourcen GmbH as well as the subsidiaries of the German operating Company.

NOTE 18 INTANGIBLE ASSETS

	31 Dec 2022 €'000	30 June 2022 €'000
Goodwill	1,076	1,076
Less: Impairment	(1,076)	(36)
	<u>-</u>	<u>1,040</u>
Customer contracts – at cost	1,526	1,526
Acquired in Business Combinations	387	-
Less: Impairment	(104)	-
Less: Accumulated amortisation	(1,466)	(904)
	<u>343</u>	<u>622</u>
Order backlog – at cost	46	46
Less: Accumulated amortisation	(46)	(46)
	<u>-</u>	<u>-</u>
Operating permit - at cost	1,500	1,500
Less: Accumulated amortisation	(188)	(94)
	<u>1,312</u>	<u>1,406</u>
Total Intangible Assets	<u>1,655</u>	<u>3,068</u>

Reconciliation of the written down values at the beginning and the end of the current and previous financial year are set out below:

	Customer Contracts €'000	Order backlog €'000	Operating Permit €'000	Goodwill €'000	TOTAL €'000
Balance at 1 July 2022	1,140	-	1,453	1,040	3,633
Less: amortisation	(518)	-	(47)	-	(565)
Balance at 31 December 2022	<u>622</u>	<u>-</u>	<u>1,406</u>	<u>1,040</u>	<u>3,068</u>
Acquired through business combinations	387	-	-	-	387
Less: amortisation	(562)	-	(94)	-	(656)
Less: impairment	(104)	-	-	(1,040)	(1,144)
Balance at 31 December 2022	<u>343</u>	<u>-</u>	<u>1,312</u>	<u>-</u>	<u>1,655</u>

Goodwill impairment test is conducted annually.

During the year ended 31 December 2023, the consolidated entity impaired the goodwill related to Vulcan Energy Engineering GmbH in the amount of €1,040,000 and Customer contracts in the amount of €104,000.

The goodwill has been impaired due to the subsidiary focusing solely on the work associated with the Project and not providing services to external customers and therefore the recoverable amount of the goodwill was assessed as nil.

Goodwill

Goodwill arises on the acquisition of a business. Goodwill is not amortised. Instead, goodwill is tested annually for impairment, or more frequently if events or changes in circumstances indicate that it might be impaired and is carried at cost less accumulated impairment losses. Impairment losses on goodwill are taken to profit or loss and are not subsequently reversed.

Customer contracts, operating permits, and order backlog

Customer contracts, operating permits and order backlog are deferred and amortised on a straight-line basis over the period of their expected benefit, being their finite life of 3-5 years.

Accounting Policy

Goodwill and other indefinite life intangible assets

The consolidated entity tests annually, or more frequently if events or changes in circumstances indicate impairment, whether goodwill and other indefinite life intangible assets have suffered any impairment, in accordance with the accounting policy stated in note 1. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of assumptions, including estimated discount rates based on the current cost of capital and growth rates of the estimated future cash flows.

Intangible assets acquired as part of a business combination, other than goodwill, are initially measured at their fair value at the date of the acquisition. Intangible assets acquired separately are initially recognised at cost. Indefinite life intangible assets are not amortised and are subsequently measured at cost less any impairment. Finite life intangible assets are subsequently measured at cost less amortisation and any impairment. The gains or losses recognised in profit and loss arising from the derecognition of intangible assets are measured as the difference between the net disposal proceeds and the carrying amount of the intangible asset. The method and useful lives of finite life intangible assets are reviewed annually. Changes in the expected pattern of consumption or useful life are accounted for prospectively by changing the amortisation method or period.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets

The consolidated entity assesses impairment of non-financial assets other than goodwill and other indefinite life intangible assets at each reporting date by evaluating conditions specific to the consolidated entity and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Recoverable amount is the higher of an asset's fair value less costs of disposal and value-in-use. The value-in-use is the present value of the estimated future cash flows relating to the asset using a pre-tax discount rate specific to the asset or cash-generating unit to which the asset belongs. Assets that do not have independent cash flows are grouped together to form a cash-generating unit.

NOTE 19 DEFERRED TAX ASSETS

	31 Dec 2023	31 Dec 2022
	€'000	€'000
Deferred tax asset comprises temporary differences attributable to:		
Other	2,145	47
Property, plant and equipment	241	1,634
Tax losses	826	-
Deferred tax asset	3,212	1,681
<i>Movements:</i>		
Opening balance	1,681	1,710
Charged to statement of profit or loss	1,531	(29)
Closing balance	3,212	1,681

Refer to note 8 for accounting policy.

NOTE 20 TRADE AND OTHER PAYABLES

	31 Dec 2023 €'000	31 Dec 2022 €'000
Trade payables (i)	9,514	6,479
Accrued expenses	5,868	1,190
Other payables	1,812	1,466
VAT Payable	-	283
	<u>17,194</u>	<u>9,418</u>

(i) Trade payables are non-interest bearing and are normally settled on 30-day terms.

Due to the short-term nature of these payables, their carrying value is assumed to be the same as their fair value.

Accounting Policy

Trade and other payables

Trade payables and other payables represent liabilities for goods and services provided to the Group prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

NOTE 21 DERIVATIVE FINANCIAL INSTRUMENT

The group has the following derivative financial instruments in the following line items in the statement of financial position:

Current liabilities

	31 Dec 2023 €'000	31 Dec 2022 €'000
Forward foreign currency contract held for trading	133	-
	<u>133</u>	<u>-</u>

Accounting Policy

(i) Derivatives that do not qualify for hedge accounting

Certain derivative instruments do not qualify for hedge accounting. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognised immediately in profit or loss and are included in other gains/(losses).

(ii) Classification of derivatives

Derivatives are only used for economic hedging purposes and not as speculative investments. However, where derivatives do not meet the hedge accounting criteria, they are classified as 'held for trading' for accounting purposes and are accounted for at fair value through profit or loss. They are presented as current assets or liabilities to the extent they are expected to be settled within 12 months after the end of the reporting period.

(iii) Fair value measurement

For information about the methods and assumptions used in determining the fair value of derivatives see note 26.

NOTE 22 EMPLOYEE BENEFITS

	31 Dec 2023 €'000	31 Dec 2022 €'000
Leave obligations	1,509	752
	1,509	752

(i) Leave obligations

The leave obligations cover the group's liabilities for long service leave and annual leave which are classified as either other long-term benefits or short-term benefits. The current portion of this liability includes all of the accrued annual leave, the unconditional entitlements to long service leave where employees have completed the required period of service and also for those employees who are entitled to pro rata payments in certain circumstances. The entire amount of the provision of €1,509,000 (31 December 2022: €752,000) is presented as current, since the group does not have an unconditional right to defer settlement for any of these obligations. However, based on past experience, the group does not expect all employees to take the full amount of accrued leave or require payment within the next 12 months.

	31 Dec 2023 €'000	31 Dec 2022 €'000
Current leave obligations expected to be settled after 12 months	755	376

(ii) Reclassification of employee benefit obligations

The group previously presented its liabilities for employee benefit obligations as provisions in the statement of financial position. However, management considers it to be more relevant if all employee benefit obligations are presented in one separate line item in the statement of financial position. €752,000 has been reclassified from current provisions to current employee obligations in prior year comparatives as at 31 December 2022.

Accounting Policy

Employee benefits

Defined contribution superannuation expenses

Contributions to defined contribution superannuation plans are expensed in the period in which they are incurred.

Short-term employee benefits

Liabilities for wages and salaries, including non-monetary benefits, annual leave and long service leave expected to be settled wholly within 12 months of the reporting date are measured at the amounts expected to be paid when the liabilities are settled.

Other long-term employee benefits

The liability for annual leave and long service leave, not expected to be settled within 12 months of the reporting date are measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on corporate bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

NOTE 23 DEFERRED INCOME

	31 Dec 2023 €'000	31 Dec 2022 €'000
Current	-	132
Government grants	-	132
Non-current	2,818	1,453
Government grants	<u>2,818</u>	<u>1,453</u>

Accounting PolicyGovernment grants

Government grants are not recognised until there is a reasonable assurance that the Group will comply with the conditions attached to them and that the grants will be received.

The assistance from the European Union aims to support the Group in testing, development, and optimisations in production of geothermal energy. Unfulfilled conditions relate to the spend requirements as part of the grant acquittal processes which will be validated by the European Union after the next reporting period, 31 December 2024. Therefore, all deferred income is presented as non-current.

NOTE 24 PROVISIONS

Current:

	31 Dec 2023 €'000	31 Dec 2022 €'000
Other provision (i)	750	-
	<u>750</u>	<u>750</u>

Non-Current:

Other provisions	264	110
	<u>264</u>	<u>110</u>

(i) Information about individual provisions and significant estimates

The amount of €750,000 has been included in the current other provision for the closure of Augsburg office.

In December 2023, the decision was made to centralise engineering operations in Karlsruhe to ensure closer collaboration between the engineering teams and proximity to future construction locations. All Augsburg located employees have been offered new contracts in Karlsruhe, this provision represents potential termination benefits to those employees who do not accept new contracts.

(ii) Movement in provisions

	Restructuring obligations €'000	Waste disposal €'000	Decontamination provision €'000	TOTAL €'000
Cost				
Carrying amount at the start of the year	-	80	30	110
Charged to profit or loss				
- additional provisions recognised	750	120	34	904
Carrying amount at end of year	750	200	64	1,014

Accounting Policy

Provisions

Provisions are recognised when the consolidated entity has a present (legal or constructive) obligation as a result of a past event, it is probable the consolidated entity will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation. If the time value of money is material, provisions are discounted using a current pre-tax rate specific to the liability. The increase in the provision resulting from the passage of time is recognised as a finance cost.

NOTE 25 DEFERRED TAX LIABILITIES

	31 Dec 2023 €'000	31 Dec 2022 €'000
Deferred tax liability comprises temporary differences attributable to:		
Other	253	6
Property, plant and equipment	1,157	1,696
Deferred tax liability	1,410	1,702
<i>Movements:</i>		
Opening balance	1,702	1,463
Additions through business combinations	115	-
Charged to income statement	(407)	239
Closing balance	1,410	1,702

Refer to note 8 for accounting policy.

NOTE 26 FAIR VALUE MEASUREMENTS

(i) Fair value hierarchy

This section explains the judgements and estimates made in determining the fair values of the financial instruments that are recognised and measured at fair value in the financial statements. To provide an indication about the reliability of the inputs used in determining fair value, the group has classified its financial instruments into the three levels prescribed under the accounting standards. An explanation of each level follows underneath the table.

	31 Dec 2023 €'000	31 Dec 2022 €'000
Level 1		
Financial assets		
Financial assets at fair value through other comprehensive income		
Australian listed equity securities	2,550	-
Level 2		
Financial liabilities		
Forward foreign currency contracts held for sale	133	-

There were no transfers between levels 1 and 2 for recurring fair value measurements during the year. The group's policy is to recognise transfers into and out of fair value hierarchy levels as at the end of the reporting period.

Level 1: The fair value of financial instruments traded in active markets (such as publicly traded derivatives and equity securities) is based on quoted market prices at the end of the reporting period. The quoted market price used for financial assets held by the group is the current bid price. The quoted market price incorporates the market's assumptions with respect to changes in economic climate such as rising interest rates and inflation, as well as changes due to ESG risk. These instruments are included in level 1.

Level 2: The fair value of financial instruments that are not traded in an active market (e.g. over-the counter derivatives) is determined using valuation techniques that maximise the use of observable market data and rely as little as possible on entity-specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

Level 3: If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3. This is the case for unlisted equity securities and for instruments where ESG risk gives rise to a significant unobservable adjustment.

(ii) Valuation techniques used to determine fair values

Specific valuation techniques used to value financial instruments include:

- The use of quoted market prices or dealer quotes for similar instruments.
- For foreign currency forwards – the present value of future cash flows based on the forward exchange rates at the reporting date.

Accounting Policy

When an asset or liability, financial or non-financial, is measured at fair value for recognition or disclosure purposes, the fair value is based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date; and assumes that the transaction will take place either: in the principal market; or in the absence of a principal market, in the most advantageous market.

Fair value is measured using the assumptions that market participants would use when pricing the asset or liability, assuming they act in their economic best interests. For non-financial assets, the fair value measurement is based on its highest and best use. Valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, are used, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

Assets and liabilities measured at fair value are classified into three levels, using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. Classifications are reviewed at each reporting date and transfers between levels are determined based on a reassessment of the lowest level of input that is significant to the fair value measurement.

For recurring and non-recurring fair value measurements, external valuers may be used when internal expertise is either not available or when the valuation is deemed to be significant. External valuers are selected based on market knowledge and reputation. Where there is a significant change in fair value of an asset or liability from one period to another, an analysis is undertaken, which includes a verification of the major inputs applied in the latest valuation and a comparison, where applicable, with external sources of data.

NOTE 27 CONTRIBUTED EQUITY

	31 Dec 2023		31 Dec 2022	
	No'000	€'000	No'000	€'000
Fully paid ordinary shares	172,073	323,739	143,435	259,158

Ordinary shares

Ordinary shares entitle the holder to participate in the dividends and the proceeds on winding up in proportion to the number of and amounts paid on the shares held.

At shareholders meetings, each ordinary share is entitled to one vote when a poll is called, otherwise each shareholder has one vote on a show of hands.

Share buy-back

There is no current on-market share buy-back.

	Date	Number	Issue Price €	€'000
At 1 January 2023		143,435,301		259,158
Placement	12/05/2023	21,400,000	3.15	67,350
Exercise of Class J performance rights	6/06/2023	1,500,000	-	-
Exercise of Class M performance rights	6/06/2023	1,000,000	-	-
Exercise of Class J performance rights	30/08/2023	1,000,000	-	-
Exercise of Class G performance rights	23/11/2023	250,000	-	-
Exercise of Class H performance rights	23/11/2023	472,727	-	-
Exercise of Class I performance rights	23/11/2023	910,909	-	-
Exercise of Class M performance rights	23/11/2023	500,000	-	-
Exercise of Class N Performance rights	23/11/2023	1,500,000	-	-
Exercise of Class S performance rights	23/11/2023	12,896	-	-
Exercise of Class D performance shares	23/11/2023	91,175	-	-
Less capital raising costs		-	-	(2,769)
At 31 December 2023		172,073,008	-	323,739

	Date	Number	Issue Price €	€'000

At 1 July 2022		143,094,049		258,933
Exercise of Class S performance rights	7/07/2022	12,897	-	-
Exercise of Class H performance rights	7/07/2022	80,909	-	-
Exercise of Class I performance rights	7/07/2022	89,091	-	-
Shares issued for services rendered	9/07/2022	58,355	3.86	225
Exercise of Class R performance rights	20/12/2022	100,000	-	-
At 31 December 2022		143,435,301	-	259,158

Accounting Policy

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds. Incremental costs directly attributable to the issue of new shares or options for the acquisition of a business are not included in the cost of the acquisition as part of the purchase consideration.

If the entity reacquires its own equity instruments, for example, as a result of a share buy-back, those instruments are deducted from equity and the associated shares are cancelled. No gain or loss is recognised in the profit or loss and the consideration paid including any directly attributable incremental costs (net of income taxes) is recognised directly in equity.

NOTE 28 RESERVES

	31 Dec 2023 €'000	31 Dec 2022 €'000
Share-based payment reserve	11,522	9,706
Revaluation reserve	(1,870)	-
Foreign currency translation reserve	3,725	6,169
Total	13,377	15,875

Share-based Payment Reserve

	Number of Warrants	Number of Performance Shares	Number of Performance Rights	€'000
<u>Movement reconciliation</u>				
On issue at 1 January 2023	-	91,174	8,382,801	9,706
Issue of performance rights during the year	-	-	385,754	-
Exercise of Performance Rights during the year	-	-	(7,146,533)	-
Exercise of Performance Shares during the year	-	(91,174)	-	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 36)	-	-	-	1,688
Performance rights issued as part of the acquisition	-	-	82,714	128
Performance rights cancelled	-	-	(153,468)	-
On issue at 31 December 2023	-	-	1,551,268	11,522

	Number of Warrants	Number of Performance Shares	Number of Performance Rights	€'000
<u>Movement reconciliation</u>				
On issue at 1 July 2022	-	91,174	8,656,324	8,995
Issue of performance rights during the year	-	-	393,374	-
Exercise of Performance Rights during the year	-	-	(282,897)	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 36)	-	-	-	711
Performance rights cancelled	-	-	(24,000)	-
Performance rights lapsed	-	-	(360,000)	-
On issue at 31 December 2022	-	91,174	8,382,801	9,706

The share-based payment reserve is used to record the value of share-based payments provided to outside parties, and share-based remuneration provided to employees and directors.

Foreign Currency Translation Reserve

	31 Dec 2023 €'000	31 Dec 2022 €'000
Balance at the beginning of the period/year	6,169	7,817
Movement during the year/period	(2,444)	(1,648)
Balance at the end of the year/period	3,725	6,169

The foreign currency translation reserve is used to recognise exchange differences arising from the translation of the financial statements of foreign operations to Euro.

Revaluation Reserve

	31 Dec 2023 €'000	31 Dec 2022 €'000
Balance at the beginning of the period/year	-	-
Movement during the year/period	(1,870)	-
Balance at the end of the year/period	(1,870)	-

The revaluation reserve is used to recognise the revaluation of investments at fair value through other comprehensive income.

NOTE 29 INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

The Company's interest in Kuniko Limited is recognised as an investment in associate accounted for using the equity method. On 17th of July 2023 the Group discontinued the use of the equity method, shareholding reducing to 19% due to capital raises.

The shares held in Kuniko have been accounted for using fair value through other comprehensive income.

(a) **Gain on discontinuation of use of the equity method of accounting for investments:**

	31 Dec 2023 €'000
Opening carrying value	974
Share of loss - associate	(456)
Fair value of Kuniko shares at the date of discontinuation of use of the equity method (note 30)	4,392
Gain on discontinuation of use of the equity method of accounting for investments	<u>3,874</u>

(b) **Interest in associates**

Set out below are the associates and joint ventures of the group as at 31 December 2023 which, in the opinion of the directors, are material to the group. The entities listed below have share capital consisting solely of ordinary shares, which are held directly by the group. The country of incorporation or registration is also their principal place of business, and the proportion of ownership interest is the same as the proportion of voting rights held.

Name of Associate	% of ownership		Carrying amount	
	31 Dec 2023 %	31 Dec 2022 %	31 Dec 2023 €'000	31 Dec 2022 €'000
Kuniko Limited (i)	-	21.15	-	974
Immaterial associates (ii)	50.1	-	124	-

- (i) Kuniko ceased to be an associate on 17 July 2023.

Interests in associates are accounted for using the equity method of accounting. Information relating to associates that are material to the consolidated entity are set out below:

	Kuniko Ltd	
	31 Dec 2023	31 Dec 2022
	€'000	€'000
<i>Summarised statement of financial position</i>		
Current assets	-	4,921
Non-current assets	-	3,016
Total assets	-	7,937
Current liabilities	-	(241)
Non-current liabilities	-	-
Total liabilities	-	(241)
Net assets	-	7,696
	12-months	6-months
	31 Dec 2023	31 Dec 2022
	€'000	€'000
<i>Summarised statement of profit or loss and other comprehensive income</i>		
Revenue	-	-
Expenses	-	(1,177)
Loss before income tax	-	(1,177)
Income tax expense	-	-
Loss after income tax	-	(1,177)
Other comprehensive loss	-	42
Total comprehensive loss	-	(1,135)

(ii) Individually immaterial associates

In addition to the interests in associates disclosed above, the group also has interests in a number of individually immaterial associates that are accounted for using the equity method.

	31 Dec 2023 €'000	31 Dec 2022 €'000
Aggregate carrying amount of individually immaterial associates	124	-
Aggregate amounts of the group's share of:		
Profit from continuing operations	-	-
Post-tax profit or loss from discontinued operations	-	-
Other comprehensive income	-	-
Total comprehensive income	-	-

Accounting policy

Associates

Associates are entities over which the consolidated entity has significant influence but not control or joint control. Investments in associates are accounted for using the equity method. Under the equity method, the share of the profits or losses of the associate is recognised in profit or loss and the share of the movements in equity is recognised in other comprehensive income. Investments in associates are carried in the statement of financial position at cost plus post-acquisition changes in the consolidated entity's share of net assets of the associate. Goodwill relating to the associate is included in the carrying amount of the investment and is neither amortised nor individually tested for impairment. Dividends received or receivable from associates reduce the carrying amount of the investment.

When the consolidated entity's share of losses in an associate equals or exceeds its interest in the associate, including any unsecured long-term receivables, the consolidated entity does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The consolidated entity discontinues the use of the equity method upon the loss of significant influence over the associate and recognises any retained investment at its fair value. Any difference between the associate's carrying amount, fair value of the retained investment and proceeds from disposal is recognised in profit or loss.

NOTE 30 FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	31 Dec 2023 €'000	31 Dec 2022 €'000
Australian listed shares	2,550	-
	<u>2,550</u>	<u>-</u>

Movement reconciliation

	Australian shares €'000	Total €'000
Carrying amount at the start of the year	-	-
Discontinuation of the use of equity method of accounting for investments (note 29)	4,392	4,392
Charged to other comprehensive income		
- change in fair value	(1,870)	(1,870)
Foreign exchange gain	28	28
Carrying amount at end of year	<u>2,550</u>	<u>2,550</u>

Accounting policy

Classification

The group classifies its financial assets in the following measurement categories:

- Those to be measured subsequently at fair value (either through OCI or through profit or loss), and
- Those to be measured at amortised cost.

The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows. For assets measured at fair value, gains and losses will either be recorded in profit or loss or OCI. For investments in equity instruments that are not held for trading, this will depend on whether the group has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income (FVOCI).

Recognition and derecognition

Regular way purchases and sales of financial assets are recognised on trade date, being the date on which the group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the group has transferred substantially all the risks and rewards of ownership.

Measurement

At initial recognition, the group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss (FVPL), transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

Financial assets at fair value through profit or loss

Financial assets not measured at amortised cost or at fair value through other comprehensive income are classified as financial assets at fair value through profit or loss. Typically, such financial assets will be either: (i)

held for trading, where they are acquired for the purpose of selling in the short-term with an intention of making a profit, or a derivative; or (ii) designated as such upon initial recognition where permitted. Fair value movements are recognised in profit or loss.

Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income include equity investments which the consolidated entity intends to hold for the foreseeable future and has irrevocably elected to classify them as such upon initial recognition.

Where there has not been a significant increase in exposure to credit risk since initial recognition, a 12-month expected credit loss allowance is estimated. This represents a portion of the asset's lifetime expected credit losses that is attributable to a default event that is possible within the next 12 months. Where a financial asset has become credit impaired or where it is determined that credit risk has increased significantly, the loss allowance is based on the asset's lifetime expected credit losses. The amount of expected credit loss recognised is measured on the basis of the probability weighted present value of anticipated cash shortfalls over the life of the instrument discounted at the original effective interest rate.

NOTE 31 INTERESTS IN SUBSIDIARIES

The consolidated financial statements incorporate assets, liabilities and results of the following wholly owned subsidiaries in accordance with the accounting policy described in note 1.

Entity	Location	Primary activity	Date of foundation or acquisition	Ownership Interest 31 December 2023 (%)	Ownership Interest 31 December 2022 (%)
Vulcan Energie Ressourcen GmbH	Karlsruhe	Operating entity	September 26, 2019	100	100
Vulcan Energy Europe Pty Limited	Perth	Operating entity	October 11, 2019	100	100
Global Geothermal Holding UG *	Karlsruhe	Operating entity	October 11, 2019	-	100
Vulcan Energy Subsurface Solutions GmbH	Karlsruhe	Operating entity	July 2, 2021	100	100
Vulcan Energy Engineering GmbH	Augsburg	Operating entity	July 2, 2021	100	100
Vulcan Geothermal GmbH	Karlsruhe	Group holding	July 09, 2021	100	100
VER GEO LIO GmbH	Karlsruhe	Group holding	July 12, 2021	100	100
Vercana GmbH	Karlsruhe	Operating entity	December 09, 2021	100	100
Natürlich Insheim GmbH	Karlsruhe (previously: Ludwigshafen)	Operating entity	December 31, 2021	100	100
Vulcan Energy Italy Pty Limited	Perth	Operating entity	July 5, 2021	100	100
Comeback Peronaldienstleistungen GmbH	Karlsruhe	Operating entity	February 1, 2023	100	-
Vulcan Projektgesellschaft 3 GmbH	Karlsruhe	Operating entity	July 4, 2023	100	-
Vulcan Projektgesellschaft 2 GmbH	Karlsruhe	Operating entity	July 3, 2023	100	-
Natürlich Südpfalz Geschäftsführungs GmbH	Landau i.d Pfalz	Operating entity	February 15, 2023	100	-
Natürlich Südpfalz GmbH & Co. KG	Landau i.d. Pfalz	Operating entity	March 10, 2023	100	-
Vulcan Lily Lithium GF - GmbH	Karlsruhe	Operating entity	May 3, 2023	100	-

Vulcan Lily Lithium (Hochst) GmbH & Co. KG	Karlsruhe	Operating entity	May 4, 2023	100	-
Vulcan Energie France SAS	France	Operating entity	June 22, 2022	100	100
Vulcan Energy SA Pty Limited	Perth	Group holding	September 23, 2023	100	-

*Global Geothermal Holding UG was merged with Vulcan Energie Ressourcen GmbH. The entity was deregistered on 28 February 2023.

NOTE 32 BUSINESS COMBINATIONS

No business combinations occurred in the period ending 31 December 2022.

Comeback Personaldienstleistungen GmbH

Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of drilling labour hire company, Comeback Personaldienstleistungen GmbH, in accordance with the Share Purchase Agreement, with an effective date on 1 February 2023 (closing-date).

The acquired business contributed revenues of €2,549,284 for sale of services and loss after tax of €103,057 to the consolidated entity for the period from 1 February 2023 to 31 December 2023. If the acquisition occurred on 1 January 2023 the revenue and the loss would have been €2,700,968 and €150,167 respectively.

Additionally, the issue of two tranches of performance rights at EUR100,000 each has been recognised as deferred consideration, based on management's assessment of the probability of achieving the milestones. Milestones are as follows:

The successful complete staffing of the drilling rigs for the year 2023 on or before December 31, 2023.
The rights will expire on December 31, 2024.

The successful complete staffing of the drilling rigs for the year 2024 on or before December 31, 2024.
The rights will expire on December 31, 2025.

The values identified in relation to acquisition of Comeback are final as at 31 December 2023.

Details of the acquisition are as follows:

	€'000
Cash	35
Trade and other receivables	458
Property, plant & equipment	23
Right-of-use assets	33
Loans and borrowings	(81)
Trade and other payables	(429)
Lease Liabilities	(33)
Fair value of net assets acquired	6
Intangible assets acquired	387
Deferred tax liabilities arising on acquisition	(115)
Acquisition-date fair value of total consideration	278

Representing:

	€'000
Cash paid	150
Performance rights issued as consideration (note 36)	128
Total consideration	278

Accounting policy

Business combinations

The acquisition method of accounting is used to account for business combinations regardless of whether equity instruments or other assets are acquired.

The consideration transferred is the sum of the acquisition-date fair values of the assets transferred, equity instruments issued, or liabilities incurred by the acquirer to former owners of the acquiree and the amount of any non-controlling interest in the acquiree. For each business combination, the non-controlling interest in the acquiree is measured at either fair value or at the proportionate share of the acquiree's identifiable net assets. All acquisition costs are expensed as incurred to profit or loss.

On the acquisition of a business, the consolidated entity assesses the financial assets acquired and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic conditions, the consolidated entity's operating or accounting policies and other pertinent conditions in existence at the acquisition-date.

Where the business combination is achieved in stages, the consolidated entity remeasures its previously held equity interest in the acquiree at the acquisition-date fair value and the difference between the fair value and the previous carrying amount is recognised in profit or loss.

Contingent consideration to be transferred by the acquirer is recognised at the acquisition-date fair value. Subsequent changes in the fair value of the contingent consideration classified as an asset or liability is recognised in profit or loss. Contingent consideration classified as equity is not remeasured and its subsequent settlement is accounted for within equity.

The difference between the acquisition-date fair value of assets acquired, liabilities assumed and any non-controlling interest in the acquiree and the fair value of the consideration transferred and the fair value of any pre-existing investment in the acquiree is recognised as goodwill. If the consideration transferred and the pre-existing fair value is less than the fair value of the identifiable net assets acquired, being a bargain purchase to the acquirer, the difference is recognised as a gain directly in profit or loss by the acquirer on the acquisition-date, but only after a reassessment of the identification and measurement of the net assets acquired, the non-controlling interest in the acquiree, if any, the consideration transferred and the acquirer's previously held equity interest in the acquiree.

NOTE 33 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's overall risk management programme focuses on the unpredictability of the financial markets and seeks to minimise potential adverse effects on the financial performance of the Group. The Group uses different methods to measure and manage different types of risks to which it is exposed.

These include monitoring levels of exposure to interest rate and foreign exchange risk and assessments of market forecasts for interest rate and foreign exchange prices. Ageing analysis and monitoring of specific credit allowances are undertaken to manage credit risk. Liquidity risk is monitored through the development of future cash flow forecasts.

Risk management is carried out by Management and overseen by the Board of Directors with assistance from suitably qualified external advisors.

The main risks arising for the Group are foreign exchange risk, interest rate risk, credit risk and liquidity risk. The Board reviews and agrees policies for managing each of these risks and they are summarised below.

The carrying values of the Group's financial instruments are as follows:

	31 Dec 2023	31 Dec 2022
	€'000	€'000
Financial Assets		
Cash and cash equivalents	78,728	134,107
Trade and other receivables	6,899	5,546
Other assets	11,775	770
	<u>97,402</u>	<u>140,423</u>
Financial Liabilities		
Trade and other payables	17,194	9,418
Derivative financial instrument	133	-
Lease liabilities	4,411	3,316
	<u>21,738</u>	<u>12,734</u>

(a) **Market risk**

(i) Foreign exchange risk

The consolidated entity undertakes certain transactions denominated in foreign currency and is exposed to foreign currency risk through foreign exchange rate fluctuations.

Foreign exchange risk arises from future commercial transactions and recognised financial assets and financial liabilities denominated in a currency that is not the entity's functional currency. The risk is measured using sensitivity analysis and cash flow forecasting.

In order to protect against exchange rate movements, the consolidated entity has entered into forward foreign exchange contracts.

The maturity, settlement amounts and the average contractual exchange rates of the consolidated entity's outstanding forward foreign exchange contracts at the reporting date were as follows:

	Sell Australian dollars		Average exchange rates	
	31 Dec 23	31 Dec 22	31 Dec 23	31 Dec 22
	€'000	€'000	€'000	€'000
Buy Euros				
Maturity:				
0 - 3 months	10,000	-	0.610	-

The carrying amount of the consolidated entity's foreign currency denominated financial assets and financial liabilities at the reporting date were as follows:

Consolidated	Assets		Liabilities	
	31-Dec-23 €'000	31-Dec-22 €'000	31-Dec-23 €'000	31-Dec-22 €'00
US dollars	-	-	3,237	304
Canadian dollar	-	-	9,465	-
Australian dollar	44,007	35,358	-	1,008
	<u>44,007</u>	<u>35,358</u>	<u>12,702</u>	<u>1,312</u>

The aggregate net foreign exchange gains/(losses) recognised in the P&L were:

	31 Dec 2023 €'000	31 Dec 2022 €'000
Net foreign exchange gains/(losses) recognised in the statement of profit or loss:	299	(105)

Sensitivity

As shown in the table above, the group is primarily exposed to changes in EUR/AUD exchange rates. The sensitivity of profit or loss to changes in the exchange rates is:

	Impact on post-tax profit	
	12 months	6 months
	31-Dec-23 €'000	31-Dec-22 €'000
EUR/AUD exchange rate - increase 5% *	(2,096)	(1,773)
EUR/AUD exchange rate - decrease 5%*	2,096	1,773
EUR/USD exchange rate - increase 5% *	(162)	(64)
EUR/USD exchange rate - decrease 5% *	162	64
EUR/CAD exchange rate - increase 5% *	(473)	-
EUR/CAD exchange rate - decrease 5% *	473	-

*Holding all other variables constant

(ii) Interest rate risk

The Group is exposed to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in the market interest rates on interest bearing financial instruments. The Group's exposure to this risk relates primarily to the Group's cash and any cash on deposit. The Group does not use derivatives to mitigate these exposures. The Group manages its exposure to interest rate risk by holding certain amounts of cash in fixed and floating interest rate facilities. At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was:

	31 December 2023		31 December 2022	
	Weighted average interest rate	Balance €'000	Weighted average interest rate	Balance €'000
Cash and cash equivalents	3.93%	63,359	1.53%	101,687

Sensitivity

Within the analysis, consideration is given to potential renewals of existing positions and the mix of fixed and variable interest rates. The following sensitivity analysis is based on the interest rate risk exposures in existence at the reporting date. The 1% increase and 1% decrease in rates is based on reasonably expected possible changes over a financial year.

At 31 December 2023, if interest rates had moved, as illustrated in the table below, with all other variables held constant, losses and equity would have been affected as follows:

	Profit higher/(lower) 31 December 2023	Profit higher/(lower) 31 December 2022
	€	€
+ 1.0% (100 basis points)	633,590	1,016,867
- 1.0% (100 basis points)	(633,590)	(1,016,867)

(b) Credit risk

Credit risk arises from the financial assets of the Group, which comprise cash and cash equivalents, trade and other receivables and other financial assets. The Group's exposure to credit risk arises from potential default of the counterparty, with maximum exposure equal to the carrying amount of the financial assets.

The Group's policy is to trade only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms will be subject to credit verification procedures.

In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant. There are no significant concentrations of credit risk within the Group except for cash and cash equivalents.

(c) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation.

The Group manages liquidity risk by maintaining adequate cash reserves from funds raised in the market and by continuously monitoring forecast and actual cash flows. The Group does not have any external borrowings.

The following are the contractual maturities of financial liabilities:

	1 year or less €'000	1-5 years €'000	> 5 years €'000	Total €'000
31 Dec 23				
Trade and other payables	17,194	-	-	17,194
Derivative liabilities	133	-	-	133
Lease Liabilities	1,086	2,596	729	4,411
31 Dec 22				
Trade and other payables	9,418	-	-	9,418
Lease Liabilities	646	1,801	869	3,316

(d) Price risk

The Group is exposed to the commodity price risk, as its energy sales are predominantly subject to prevailing market prices. The contract with Pfalzwerke guarantees a minimum price of €0.25 per kWh. During the year months ending 31 December 2023 Vulcan sold 16,279 MWh at an average price of €0.26 per kWh.

At 50% of the upward movement in the price for Mwh, the Group's loss would decrease by €2.1m. At 100% upward price movement the loss would decrease by €4.2m.

(e) **Capital risk management**

The Group's objectives when managing capital are to:

- Safeguard their ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders; and
- Maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the number of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Given the stage of the Company's development there are no formal targets set for return on capital. The Company is not subject to externally imposed capital requirements. The net equity of the Company is equivalent to capital. Net capital is obtained through capital raisings on the Australian Securities Exchange ("ASX").

NOTE 34 CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

	Lease liabilities €'000	Loan €'000	Total €'000
Balance at 1 July 2022	3,005	-	3,005
Net cash used in financing activities	(462)	-	(462)
Additions to leases	776	-	776
Other changes	(3)	-	(3)
Balance at 31 December 2022	3,316	-	3,316
Net cash used in financing activities	(1,744)	(81)	(1,825)
Acquired in business combinations	33	81	114
Additions to leases	2,835	-	2,835
Other changes	(29)	-	(29)
Balance at 31 December 2023	4,411	-	4,411

NOTE 35 NON-CASH INVESTING AND FINANCING ACTIVITIES

	12-months 31 Dec 2023 €'000	6-months 31 Dec 2022 €'000
Additions to the right of use assets	3,042	776
Performance shares issued for consideration of acquisition	128	-
	3,170	776

NOTE 36 SHARE-BASED PAYMENTS

	12-months 31 Dec 2023 €'000	6-months 31 Dec 2022 €'000
Recognised share-based payment transactions		
Performance rights issued to Directors, staff and consultants (i)	315	153
Performance rights issued to Directors & staff in prior periods (ii)	1,373	558
Performance rights issued as consideration for acquisition of subsidiary Comeback (note 32)	128	-
Shares issued for consideration of services	-	225
	1,816	936
Represented by		
Shared-based payment expense	1,688	711
Acquisition of subsidiary (note 32)	128	-
Investor relations expense	-	225
	1,816	936

(i) Details of new issues during the year:

On 28 February 2023, the company granted 244,853 performance rights to the staff to align their interests to that of the Company's shareholders and assist as an effective means of retention. On 10 September 2023 further 115,667 were granted to staff.

The rights were granted with the following vesting conditions:

- Successful execution of drilling operations in line with development plans.

- Remaining an employee on the earlier of the date of 12 months from satisfaction of the Vesting Condition or 31 December 2024.

The value of performance rights was determined, as follows:

Type		Fair value of each rights (EUR)	Number of Rights	Grant Date	Expiry date	Total value of Rights (EUR)	Share based payment expense (EUR)
Employee Plan	Incentive	4.07	244,853	28/02/2023	1/07/2025	995,709	263,052
Employee Plan	Incentive	1.82	115,667	10/09/2023	1/07/2025	210,753	30,472

On the 28th of May 2023, following AGM approval, the Company granted service-based performance rights to Non-Executive Director (NED Service Rights). Ranya Alkadamani received 25,234 service-based performance rights valued at EUR 65,720. Issued in three tranches as class AC. The rights expire a year after vesting.

Performance rights vest as follows:

- 1/3 vesting 12 months from the date of 28 May 2023.
- 1/3 vesting 24 months from the date of 28 May 2023.
- 1/3 vesting 36 months from the date of 28 May 2023.

Type	Fair value of each rights (EUR)	Grant date	Number of Rights	Vesting date	Total value of Rights (EUR)	Share based payment expense (EUR)
Tranche 1	2.60	28/05/2023	8,411	28/05/2024	21,906	11,919
Tranche 2	2.60	28/05/2023	8,411	28/05/2025	21,906	5,967
Tranche 3	2.60	28/05/2023	8,412	28/05/2026	21,908	3,981

(ii) Details of performance rights issued during the previous periods:

Under the Company's Incentive Award plan, the Company issued the following incentives:

- An annual deferred incentive (ADI), designed to reward creation of exceptional short-term shareholder value as evidenced by the performance hurdles, issued in three Tranches as Class AA.
- A long-term incentive (LTI), designed to reward creation of exceptional long-term shareholder value as evidenced by performance hurdles, issued in seven tranches as Class AB.

The incentives were issued on the following dates:

- On the 19th of September 2022; 52,000 ADIs and 102,000 LTIs were issued to the Executives.
- On the 13th of December 2022; 12,700 ADIs and 56,200 LTIs were issued to the Executives.
- On the 29th of November 2022; 26,000 ADI's and 116,000 LTI's were issued to the Managing Director.

Details of the ADIs for Executives:

Item	Item Executive Rights – ADI					
	Tranche 1		Tranche 2		Tranche 3	
Grant date	19/09/2022	13/12/2022	19/09/2022	13/12/2022	19/09/2022	13/12/2022
Fair value of each right (EUR)	5.24	4.30	5.24	4.30	5.24	4.30
Commencement of performance period	1/11/2022 & 1/07/2022	1/11/2022 & 14/11/2022	1/11/2022 & 1/07/2022	1/11/2022 & 14/11/2022	1/11/2022 & 1/07/2022	1/11/2022 & 14/11/2022
Performance measurement date	30/06/2023	30/06/2023	30/06/2023	30/06/2023	30/06/2023	30/06/2023
Vesting date	30/06/2024	30/06/2024	30/06/2024	30/06/2024	30/06/2024	30/06/2024
Expiry date	30/06/2026	30/06/2026	30/06/2026	30/06/2026	30/06/2026	30/06/2026
Volatility	n/a	n/a	n/a	n/a	n/a	n/a
Risk-free rate	n/a	n/a	n/a	n/a	n/a	n/a
Dividend yield	nil	nil	nil	nil	nil	nil
Number of Rights	15,600	3,810	15,600	3,810	20,800	5,080
Price at grant (EUR)	5.24	4.30	5.24	4.30	5.24	4.30
Valuation per Tranche (EUR)	81,744	16,383	81,744	16,383	108,992	21,844
Share based payment expense (EUR)	(9,395)	(751)	16,953	3,198	22,311	8,994

Item	Managing Director's Rights – ADI ¹		
	Tranche 1	Tranche 2	Tranche 3
Grant date	29/11/2022	29/11/2022	29/11/2022
Fair value of each right (EUR)	4.52	4.52	4.52
Commencement of performance period	1/07/2022	1/07/2022	1/07/2022
Performance measurement date	30/06/2023	30/06/2023	30/06/2023
Vesting date	30/06/2024	30/06/2024	30/06/2024
Expiry date	30/06/2026	30/06/2026	30/06/2026
Volatility	n/a	n/a	n/a
Risk-free rate	n/a	n/a	n/a
Dividend yield	nil	nil	nil
Number of Rights	7,800	7,800	10,400
Price at grant (EUR)	4.52	4.52	4.52
Valuation per Tranche (EUR)	35,228	35,228	46,971

Share based payment expense (EUR)	(4,205)	3,350	15,991

¹ – MD's Rights relate to rights granted to Dr. Francis Wedin, before the change of his role to the Executive Chairman.

Details of ADI performance rights vesting conditions:

Tranche 1:

The Tranche 1 will vest subject to the obtaining sufficient funding in order to allow for completion of the first plant that will be able to produce lithium on a commercial scale and/or the first new commercial geothermal heating plant, in accordance with Vulcan's business plan (First Plant) by 30 June 2023.

Tranche 2:

The Tranche 2 will vest subject to the achievement of various individual and business KPIs. The STI targets reflect a balance of individual and organisational goals impacting overall STI. Individual goals in the assessment of the STI include items such as sustainability, cost performance, funding, approval of drilling permits, drilling activity, compliance and governance, growth and safety. Individual executive goals are all clearly defined and specifically measurable.

Tranche 3

The tranche 3 will vest subject to the achievement of the shared objectives as follows:

People:

- a) >80% retention rate for agreed critical roles at all levels of the organisation for FY 23 onwards; and
- b) Increased employee satisfaction rate based on previous annual internal employee satisfaction survey.

Environment:

- a) Obtain an ESG rating from a recognised third party ESG provider that is above 50%;
- b) Obtain a carbon neutral emission certification from a recognised third-party issuer where the Group's carbon emissions footprint is measured and offset by supporting credible carbon offset projects and verified across all business units by 30 June 2023; and
- c) Reporting of climate related impacts, risks, and opportunities management by the Group according to the Taskforce for Climate-Related Financial Disclosures (TCFD) guidelines and/or report according to the Taskforce for Nature-Related Financial Disclosures (TNFD).

Social:

- a) All exploration/production licenses to be in good standing as at 30 June 2023; and
- b) Release an announcement on the ASX that it has commenced drilling in the Upper Rhine Valley.

Performance assessment has been completed during the year.

The above ADI performance rights are subject to continuous service until the vesting date.

Details of the LTIs for Executives:

Item		Grant date	Fair value of each right (EUR)	Expiry date	Volatility	Risk-free rate	Number of Rights	Price at grant (EUR)	Valuation per Tranche (EUR)	Share based payment expense (EUR)
Executive Rights	Tranche 1	19/09/2022	5.24	30/06/2027	n/a	n/a	30,600	5.24	160,344	10,262
		13/12/2022	4.30	30/06/2027	n/a	n/a	16,860	4.30	72,498	9,493
	Tranche 2	19/09/2022	5.24	30/06/2027	n/a	n/a	15,300	5.24	80,172	5,131
		13/12/2022	4.30	30/06/2027	n/a	n/a	8,430	4.30	36,249	4,747
	Tranche 3	19/09/2022	5.24	30/06/2027	n/a	n/a	10,200	5.24	53,448	3,421
		13/12/2022	4.30	30/06/2027	n/a	n/a	5,620	4.30	24,166	3,164
	Tranche 4	19/09/2022	5.24	30/06/2027	n/a	n/a	7,650	5.24	40,086	2,566
		13/12/2022	4.30	30/06/2027	n/a	n/a	4,215	4.30	18,125	2,373
	Tranche 5	19/09/2022	5.24	30/06/2027	n/a	n/a	7,650	5.24	40,086	2,566
		13/12/2022	4.30	30/06/2027	n/a	n/a	4,215	4.30	18,125	2,373
	ATSR Rights	19/09/2022	4.18	30/06/2027	75%	3.405%	10,200	5.24	42,636	5,448
		13/12/2022	3.24	30/06/2027	75%	3.115%	5,620	4.30	18,209	4,794
	RTSR Rights	19/09/2022	4.57	30/06/2027	75%	3.405%	20,400	5.24	93,228	11,914
		13/12/2022	3.50	30/06/2027	75%	3.115%	11,240	4.30	39,340	9,587

Item		Grant date	Fair value of each right (EUR)	Expiry date	Volatility	Risk-fee rate	Number of Rights	Price at grant (EUR)	Valuation per Tranche (EUR)	Share based payment expense (EUR)
MD Rights	Tranche 1	29/11/2022	4.52	30/06/2027	n/a	n/a	34,800	4.52	157,296	18,709
	Tranche 2	29/11/2022	4.52	30/06/2027	n/a	n/a	17,400	4.52	78,648	9,354
	Tranche 3	29/11/2022	4.52	30/06/2027	n/a	n/a	11,600	4.52	52,432	6,236
	Tranche 4	29/11/2022	4.52	30/06/2027	n/a	n/a	8,700	4.52	39,324	4,677
	Tranche 5	29/11/2022	4.52	30/06/2027	n/a	n/a	8,700	4.52	39,324	4,677
	ATSR Rights	29/11/2022	3.46	30/06/2027	75%	3.235%	11,600	4.52	40,136	9,566
	RTSR Rights	29/11/2022	3.69	30/06/2027	75%	3.235%	23,200	4.52	85,608	20,355

¹ – MD's Rights relate to rights granted to Dr. Francis Wedin, before the change of his role to the Executive Chairman.

Details of LTI performance rights vesting conditions:

Tranche 1:

The Tranche 1 Rights will vest subject to the achievement of the successful ramp up to nameplate capacity for Phase 1 energy and lithium chemicals production, and achievement of corresponding revenue.

Tranche 2:

The Tranche 2 Rights will vest subject to the achievement of obtaining a positive definitive feasibility study for Phase 2 energy and lithium chemicals production, and achievement of corresponding revenue.

Tranche 3:

The Tranche 3 Rights will vest subject to the achievement of obtaining project financing for completion of Phase 2 capital expenditure.

Tranche 4:

The Tranche 4 Rights will vest subject to the achievement of carbon neutral emission certification across all operations through each year in the four-year period commencing 30 June 2022.

Tranche 5:

The Tranche 5 Rights will vest subject to the achievement of lowest quartile absolute greenhouse gas (GHG) emissions.

ATSR Rights:

The number of RTSR Rights that vest is based on the TSR of Vulcan over the performance period, relative to the returns of the Peer Group. The RTSR Rights will vest according to the following schedule:

Company's TSR performance	Percentage of ATSR Rights eligible to vest
Company's TSR < 7.5%	Nil
7.5% < Company's TSR <10%	50% to 75% on a pro-rata basis
10% < Company's TSR < 12.5%	75% to 100% on a pro-rata basis
Company's TSR > 12.5%	100%

RTSR Rights:

The number of RTSR Rights that vest is based on the TSR of Vulcan over the performance period, relative to the returns of the Peer Group. The RTSR Rights will vest according to the following schedule.

Company's TSR performance relative to the Peer Group	Percentage of RTSR Rights eligible to vest
50th percentile	50%
Between 50th percentile and 75th percentile	Pro-rata
75th percentile	100%

On the 29th of November 2022 the Company issued Performance rights to Non-Executive Directors (NED Service Rights). Dr. Günter Hilken and Mark Skelton each received 14,237 performance rights valued at EUR 67,746. Issued in three tranches as class AC.

Performance rights vest as follows:

- 1/3 vesting 12 months from the date of 29 November 2022.
- 1/3 vesting 24 months from the date of 29 November 2022.
- 1/3 vesting 36 months from the date of 29 November 2022.

Type	Grant date	Number of Rights	Vesting date	Total value of Rights (EUR)	Share based payment expense (EUR)
Tranche 1	29/11/2022	9,491	29/11/2023	45,164	39,238
Tranche 2	29/11/2022	9,491	29/11/2024	45,164	9,796
Tranche 3	29/11/2022	9,491	29/11/2025	45,164	6,537

Details of performance rights issued in previous years:

Type	Fair value of each right	Expected volatility	Grant date	Price at grant date (EUR)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of Rights	Total value of Rights (EUR)	Share based payment expense (EUR)
Class J	0.55	70%	10/09/2020	0.55	16/09/2023	1.84	0.26%	2,500,000	1,368,598	205,597
Class S	4.95	N/A	24/06/2021	4.95	30/06/2025	N/A	N/A	38,688	191,561	35,397
Class T	4.82 & 7.54	N/A	29/06/2021 & 16/12/2021	4.82 & 7.54	1/12/2024	N/A	N/A	250,000 & 18,000	1,341,080	364,904
Class U	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	250,000	1,205,360	332,199
Class V	4.82 & 7.54	N/A	29/06/2021 & 16/12/2021	4.82 & 7.54	1/12/2024	N/A	N/A	100,000 & 18,000	617,864	159,581
Class W	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	100,000	482,144	(137,545)
Class Y	7.54	N/A	16/12/2021	7.54	1/12/2024	N/A	N/A	60,000	452,400	46,410
Class Z	7.54	N/A	16/12/2021	7.54	1/12/2024	N/A	N/A	50,000	377,000	102,770

Details of Performance Rights vesting conditions:

Class J

- The Company announcing, within 36 months from the date of issue, a positive (JORC-Compliant) Definitive Feasibility Study in relation to the Project confirming it is commercially viable; and
- The VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 225% of the VWAP for Shares for the last 5 trading days up to but not including the date of 10 September 2020.

Vesting conditions have been met during the year.

Notes to the Consolidated Financial Statements

Class S

- One third vesting 12 months from the date of the 24 June 2021 General Meeting (EGM), one third vesting 24 months from EGM, one third vesting 36 months from EGM.

The first and second vesting conditions have been met.

Class T

- The Company being issued a building permit for the first geothermal power plant or, in the case of a pure heating project with no electricity production, the transfer station, on or before the Expiry Date of 1st December 2024.

Class U

- The Company being issued a building permit for the first Direct Lithium Extraction system, on or before the Expiry Date of 1st December 2024.

Class V

- The Company being granted a permit according to BImSchG for the first lithium refinery, on or before the Expiry Date of 1st December 2024.

Class W

- The Company announcing commissioning of the first commercial lithium extraction plant, on or before the Expiry Date of 1st December 2024.

Class Y

- The Company announcing successful listing of Vulcan Energy on the regulated market of the Frankfurt Stock Exchange on or before the expiry date of 1 December 2024.

The vesting condition has been met during the year.

Class Z

- Performance Rights will vest upon the Company obtaining project finance for the first commercial plant, on or before the Expiry Date of 1 December 2024.

Set out below are summaries of performance rights movement during the year:

	As at 1 January 2023	Granted	Exercised	Cancelled	As at 31 December 2023	Exercisable performance rights
Class G	250,000	-	(250,000)	-	-	-
Class H	472,727	-	(472,727)	-	-	-
Class I	910,909	-	(910,909)	-	-	-
Class J	2,500,000	-	(2,500,000)	-	-	-
Class M	1,500,000	-	(1,500,000)	-	-	-
Class N	1,500,000	-	(1,500,000)	-	-	-
Class S	25,791	-	(12,897)	-	12,894	-
Class T	260,000	-	-	-	260,000	-
Class U	250,000	-	-	-	250,000	-
Class V	110,000	-	-	-	110,000	-
Class W	100,000	-	-	(100,000)	-	-
Class Y	60,000	-	-	-	60,000	60,000
Class Z	50,000	-	-	-	50,000	-
Class AA	90,700	-	-	(53,468)	37,232	-
Class AB	274,200	-	-	-	274,200	-
Class AC	28,474	-	-	-	28,474	9,491
Class IP	-	360,520	-	-	360,520	-
Class AE	-	82,714	-	-	82,714	41,357
Class AD	-	25,234	-	-	25,234	-
	8,382,801	468,468	(7,146,533)	(153,468)	1,551,268	110,848

No performance rights expired during the year.

Set out below are summaries of performance rights granted and exercised.

	As at 1 July 2022	Granted	Exercised	Cancelled	Lapsed	As at 31 December 2022	Exercisable performance rights
Class G	250,000	-	-	-	-	250,000	250,000
Class H	553,636	-	(80,909)	-	-	472,727	472,727
Class I	1,000,000	-	(89,091)	-	-	910,909	910,909
Class J	2,500,000	-	-	-	-	2,500,000	-
Class M	1,500,000	-	-	-	-	1,500,000	1,500,000
Class N	1,500,000	-	-	-	-	1,500,000	1,500,000
Class P	368,000	-	-	(8,000)	(360,000)	-	-
Class R	100,000	-	(100,000)	-	-	-	-
Class S	38,688	-	(12,897)	-	-	25,791	-
Class T	268,000	-	-	(8,000)	-	260,000	-
Class U	250,000	-	-	-	-	250,000	-
Class V	118,000	-	-	(8,000)	-	110,000	-
Class W	100,000	-	-	-	-	100,000	-
Class Y	60,000	-	-	-	-	60,000	-
Class Z	50,000	-	-	-	-	50,000	-
Class AA (ADI)	-	90,700	-	-	-	90,700	-
Class AB (LTI)	-	274,200	-	-	-	274,200	-
Class AC (NED)	-	28,474	-	-	-	28,474	-
	8,656,324	393,374	(282,897)	(24,000)	(360,000)	8,382,801	4,633,636

Set out below are summaries of performance shares granted and exercised.

	As at 1 Jan 2023	Issued	Exercised	Cancelled, Lapsed or Expired	As at 31 December 2023	Exercisable performance shares
Class D	91,174	-	(91,174)	-	-	-
	91,174	-	(91,174)	-	-	-

	As at 1 July 2022	Issued	Exercised	Cancelled, Lapsed or Expired	As at 31 December 2022	Exercisable performance shares
Class D	91,174	-	-	-	91,174	-
	91,174	-	-	-	91,174	-

Accounting Policy

Share-based payments

Equity-settled and cash-settled share-based compensation benefits are provided to Key Management Personnel and employees.

Equity-settled transactions are awards of shares, or options over shares, which are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using an appropriate valuation model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the consolidated entity receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions are recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest and the expired portion of the vesting

period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying an appropriate valuation model, taking into consideration the terms and conditions on which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- a. During the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- b. From the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore, any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the consolidated entity or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the consolidated entity or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

NOTE 37 RELATED PARTY DISCLOSURE

Parent entity

Vulcan Energy Resources Limited is the parent entity.

Subsidiaries

Interests in subsidiaries are set out in note 31.

Associates

Interests in associates are set out in note 29.

The aggregate compensation made to directors and other members of key management personnel of the consolidated entity is set out below.

	12 months 31-Dec-23 €	6 months 31-Dec-22 €
Short-term benefits	1,434,501	770,032
Post-employment benefits	100,608	38,325
Share-based payments	309,652	299,871
	1,844,761	1,108,228

(a) **Transactions with associates**

Loans to or from associates

There were no loans to or from associates at 31 December 2023 (31 December 2022: nil).

(b) **Transactions with related parties**

During the year ending 31 December 2023 payments for consultancy fees of €12,056 (31 December 2022: €28,089) were made to JRB Consulting Ltd, a related party of Ms. Josephine Bush, in respect of expert advice on ESG reporting. There were no amounts outstanding as at 31 December 2022 to JRB Consulting Ltd (31 December 2022: €8,709), however there was a prepayment for Ms. Bush's director fee to the value of €3,605.

During the previous year Vulcan entered into a contract with Dr. Horst Kreuter to rent a flat at the rate of €1,810 per month and €418 operating costs monthly. The contract was a short term lease. No amount was paid from inception of the contract and until 31 December 2022. The amount of €2,715 was outstanding as at 31 October 2022 and nil was outstanding as at 31 December 2022. Dr. Horst Kreuter ceased to be a key management personnel on 31 October 2022.

There was an outstanding balance payable to Gavin Rezos of €11,666 (31 December 2022: nil) in relation to his directors' fees.

Loans to/from related parties

There were no loans to or from related parties at the 31 December 2023 (31 December 2022: nil).

Other than the above, there were no other transactions with related parties during the year ended 31 December 2023.

Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

NOTE 38 COMMITMENTS

Below are the commitments in relation to its exploration and evaluation assets:

	31-Dec-23 €'000	31-Dec-22 €'000
Within one year	1,888	5,482
One to five years	-	4,708
	<u>1,888</u>	<u>10,190</u>

Below are the commitments in relation to capital expenditure:

	31-Dec-23 €'000	31-Dec-22 €'000
Within one year	22,472	30,383
One to five years	-	1,917
	<u>22,472</u>	<u>32,300</u>

NOTE 39 CONTINGENCIES

The Group has given bank guarantees as at 31 December 2023 of €958,000 (31 December 2022: €1,245,000)

The Group has no contingent assets and liabilities as at 31 December 2023 (30 December 2022 : nil).

NOTE 40 AUDITOR'S REMUNERATION

	31 Dec 2023 €'000	31 Dec 2022 €'000
Amounts received or due and receivable by RSM Australia Partners for:		
Audit or review of the annual financial report	102	73
Comfort letter in relation to listing prospectus	111	-
Amounts received or due and receivable by RSM GmbH for:		
Review of the financial report	46	95
Comfort letter in relation to listing prospectus	46	-
Amounts received or due and receivable by RSM Ebner Stolz:		
Audit of the annual financial report	135	-
	<u>440</u>	<u>168</u>

NOTE 41 ACCUMULATED LOSSES

	12 months 31 Dec 23 €'000	6 months 31 Dec 22 €'000
Balance at beginning of the period/year	(41,872)	(28,422)
Loss after income tax for the period/year	(26,963)	(13,450)
Balance at end of the period/year	<u>(68,835)</u>	<u>(41,872)</u>

NOTE 42 PARENT ENTITY

	31-Dec-23 €'000	31-Dec-22 €'000
Statement of Financial Position		
ASSETS		
Current Assets	49,411	64,912
Non-Current Assets	219,929	169,934
Total Assets	<u>269,340</u>	<u>234,846</u>
LIABILITIES		
Current Liabilities	1,059	1,618
Non-Current Liabilities	-	68
Total Liabilities	<u>1,059</u>	<u>1,686</u>
EQUITY		
Issued Capital	323,739	259,158
Reserves	6,049	12,984
Accumulated losses	(61,507)	(38,981)
Total Equity	268,281	233,161
Statement of Profit or Loss and other comprehensive income		
Loss for the year/period	(22,526)	(7,682)
Total Comprehensive Loss	<u>(22,526)</u>	<u>(7,682)</u>

Contingent liabilities

Other than disclosed at Note 39, the parent entity has no other contingent assets or contingent liabilities as at 31 December 2023 and 31 December 2022.

Capital commitments - Property, plant and equipment

The parent entity had no capital commitments for property, plant and equipment as at 31 December 2023 and 31 December 2022.

Exploration commitments

The parent entity has no exploration commitments as at 31 December 2023 and 31 December 2022.

Significant accounting policies

The accounting policies of the parent entity are consistent with those of the consolidated entity, as disclosed in the financial statements, except for the following:

- (i) Investments in subsidiaries are accounted for at cost, less any impairment, in the parent entity.

NOTE 43 DIVIDENDS

No dividend has been declared or paid during the year ended 31 December 2023 (31 December 2022: nil), and the Directors do not recommend the payment of a dividend in respect of the year ended 31 December 2023.

Accounting Policy

Dividends

Dividends are recognised when declared during the financial year and no longer at the discretion of the Company.

NOTE 44 EVENTS AFTER THE REPORTING DATE

On 15 January 2024 announced the appointment of Felicity Gooding to the role of Group Chief Financial Officer for the Vulcan Group. Mrs. Gooding is a Senior Finance executive and leader with over 20 years' experience in strategic and financial analysis, debt funding (including acting as joint project leader in obtaining expansion finance for Fortescue Limited totalling US\$3.5b), corporate finance, mergers and acquisitions, management and financial accounting and governance within Australia, Singapore, London and Washington DC.

Mr. Mark Skelton retired from the Board as a non-executive director of the Company effective 1 February 2024. Mr. Skelton joined the Board of Vulcan in April 2022 whilst the Company was evolving from a development company into a project execution company. During his time on the Board, Mr. Skelton contributed to building a strong executive leadership team across Vulcan, and specifically, the build-out of the project execution team, which has already made significant strides with completion of the construction of the Lithium Extraction and Optimisation Plant.

The Company continues its debt and project level equity financing process, supported by BNP Paribas, following positive market sounding in 2023 from commercial banks, development banks, and government-backed export credit agencies. Vulcan aims to complete its finance program in the third quarter of 2024.

After preliminary due diligence, Vulcan's Phase One ZERO CARBON LITHIUM™ Project appears potentially suitable for an EIB financing and the Project has advanced to the "Under Appraisal" stage. EIB's proposed financing could amount to up to €500m (~A\$825m), pending completion of due diligence, credit approval and legal agreement, and subject to EIB's governing bodies approval. It is expected to serve as a cornerstone to complement ongoing debt funding discussions with leading export credit agencies and international banks.

In April 2023, Nobian and Vulcan signed a Term Sheet to review potential areas of cooperation. The agreement followed a longer cooperation to assess the feasibility of producing lithium hydroxide from lithium chloride in Germany. The initial finance structure saw the financing of its upstream and downstream lithium projects

separately, and the Term Sheet contemplated Nobian participating at the downstream lithium hydroxide project level only. Following feedback from its financiers and other stakeholders, Vulcan has decided to fund its upstream and downstream developments in an integrated lithium and renewable energy project (integrated project) in order to gain more operational synergies. Due to the changed project structure by Vulcan, Nobian has decided not to participate further in the equity financing process for the Integrated Project. Nobian recognises Vulcan's decision to raise equity at the Integrated Project level; at the same time, it also impacts Nobian's potential role in the project as a strategic partner. Nobian and Vulcan will continue to explore other forms of commercial collaboration.

Apart from the above, no other matter or circumstance has arisen since 31 December 2023 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

Directors' Declaration

In the Directors' opinion:

- a) The financial statements and accompanying notes are in accordance with the Corporations Act 2001, including:
 - i) Complying with Australian Accounting Standards, the Corporations Regulations 2001 and other mandatory professional reporting requirements; and
 - ii) Giving a true and fair view of the consolidated entity's financial position as at 31 December 2023 and of its performance for the year ended on that date.
- b) The financial statements and notes comply with International Financial Reporting Standards.
- c) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The Directors have been given the declarations required by section 295A of the Corporations Act 2001.

This declaration is made in accordance with a resolution of the Board of Directors made pursuant to section 295(5)(a) of the Corporations Act 2001 and is signed for and on behalf of the Directors by:

Dr. Francis Wedin

Chairman

27 March 2024

17.2.6 Independent Auditor's Report

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF VULCAN ENERGY RESOURCES LIMITED

Opinion

We have audited the financial report of Vulcan Energy Resources Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 31 December 2023, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- (i) Giving a true and fair view of the Group's financial position as at 31 December 2023 and of its financial performance for the year then ended; and
- (ii) Complying with Australian Accounting Standards and the *Corporations Regulations 2001*.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Group in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the *Corporations Act 2001*, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit Matter	How our audit addressed this matter
Exploration and Evaluation Expenditure Refer to Note 15 in the financial statements	
The Group has capitalised exploration and evaluation expenditure with a carrying value of €48,475,000 as at 31 December 2023. We considered this to be a key audit matter due to the significant management judgments involved in assessing the carrying value of the asset including: • Determination of whether the exploration and evaluation expenditure can be associated with finding specific mineral resources and the basis on which that expenditure is allocated to an area of interest; • Assessing whether exploration activities have reached a stage at which the existence of economically recoverable reserves may be determined; and • Assessing whether any indicators of impairment are present and if so, judgement applied to determine and quantify any impairment loss.	Our audit procedures included: • Assessing the Group's accounting policy for compliance with Australian Accounting Standards; • Obtaining a schedule of the areas of interest held by the Group and testing on a sample basis that the right to tenure of each relevant area of interest remained current at reporting date; • Testing a sample of additions to supporting documentation and ensuring the amounts capitalised are in compliance with the Group's accounting policy and relate to the area of interest; • Enquiring with management and reading budgets and other documentation as evidence that active and significant operations in, or relation to, the area of interest will be continued in the future; • Assessing and evaluating management's determination that exploration activities have not yet progressed to the stage where the existence or otherwise of economically recoverable reserves may be determined; • Assessing and evaluating management's assessment of whether indicators of impairment existed; and • Assessing the appropriateness of disclosures in the financial statements.

Key Audit Matter	How our audit addressed this matter
Property, plant and equipment Refer to Note 16 in the financial statements	
The Group has property, plant and equipment with a carrying value of €138,605,000 as at 31 December 2023. We considered this to be a key audit matter due to significant amounts of costs capitalised and management judgments involved in assessing the carrying value of the assets including: • Determination of the nature of costs incurred meet the specific recognition criteria in AASB 116 <i>Property, Plant and Equipment</i> for capitalisation; • Determination of asset under construction be capable of operating in the manner intended by management; and • Assessing whether any indicators of impairment are present and if so, judgement applied to determine and quantify any impairment loss.	Our audit procedures included: • Assessing the Group's accounting policy for compliance with Australian Accounting Standards; • Obtaining the schedule of property, plant and equipment and on sample basis, testing the additions to supporting documentation and ensuring the amounts were capital in nature; • Critically assessing management's determination of when asset is available for use and challenge management assumptions used; • Critically assessing management's determination of useful life of assets and challenge management assumptions used; • Assessing and evaluating management's assessment of whether indicators of impairment existed; and • Assessing the appropriateness of disclosures in the financial statements.
Share-based payment Refer to Note 36 in the financial statements	
During the year, the Group issued performance rights to key management personnel and employees. Management have accounted for these instruments in accordance with AASB 2 <i>Share-Based Payment</i>. We have considered this to be a key audit matter because: • The complexity of the accounting associated with recording these instruments and management estimation in determining the fair value of instruments granted; • Management judgement is required to determine the probability of vesting conditions of these instruments and the inputs used in the valuation model to value these instruments; and • The recognition of the share-based payment expense is complex due to the variety of vesting conditions attached to these instruments.	Our audit procedures included: • Assessing the Group's accounting policy for compliance with Australian Accounting Standards; • Obtaining an understanding of the terms and conditions of these instruments granted; • Assessing the completeness of the instruments granted/expired/lapsed at reporting date; • Assessing the appropriateness of management's valuation methodology used to determine the fair value of these instruments granted; • Testing the key inputs used in the valuation model for each instrument granted; • Critically assessing management's determination of the vesting probability of each instrument; • Recalculating the value of the share-based payment expense to be recognised in consolidated statement of profit or loss and other comprehensive income; and • Assessing the appropriateness of disclosures in the financial statements.

Other Information

The directors are responsible for the other information. The other information comprises the information included in the Group's annual report for the year ended 31 December 2023 but does not include the financial report and the auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: https://www.auasb.gov.au/admin/file/content102/c3/ar1_2020.pdf This description forms part of our auditor's report.

Report on the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in the directors' report for the year ended 31 December 2023.

In our opinion, the Remuneration Report of Vulcan Energy Resources Limited, for the year ended 31 December 2023, complies with section 300A of the Corporations Act 2001.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

Perth, WA

Dated: 27 March 2024

RSM AUSTRALIA PARTNERS

AIK KONG TING

Partner

17.3 Consolidated Short Financial Year Financial Statements 2022

17.3.1 Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the short financial year ended 31 December 2022

		6-months	12-months
	Not	31 Dec 2022	30 June 2022
	e	€'000	€'000
Revenue from continuing operations	4	3,622	3,799
Other income	5	213	317
Finance income	6	615	350
Gain on deconsolidation		-	1,975
Loss from equity accounted investments	25	(249)	(495)
Other own work capitalised	5	3,489	3,696
Raw materials and purchased services		(3,119)	(2,512)
Finance cost	6	(177)	(155)
Administrative expenses	7	(2,127)	(3,790)
Compliance and regulatory expenses		(304)	(729)
Consulting and legal fees	7	(1,362)	(4,099)
Depreciation and amortisation expenses	7	(2,299)	(2,629)
Employee benefit expenses	7	(8,097)	(7,793)
Investor relations expenses		(231)	(615)
Impairment expenses		-	(36)
Loss on disposal of financial assets		-	(745)
Occupancy costs		(1,265)	(498)
Share-based payments expense	32	(711)	(3,637)
Other expenses		(1,446)	(1,175)
Foreign currency (loss)/gain		(105)	285
Loss before income tax expense		(13,553)	(18,486)
Income tax benefit/(expense)	8	103	(365)
Loss after income tax for the period		(13,450)	(18,851)
Other comprehensive income			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations		(1,648)	6,990
Total comprehensive loss for the period (net of tax)		(15,098)	(11,861)
Total comprehensive loss for the period attributable to the owners of Vulcan Energy Resources Limited		(15,098)	(11,861)
Loss per share for the year attributable to the members Vulcan Energy Resources Limited:		€	€
Basic loss per share	9	(0.09)	(0.15)
Diluted loss per share	9	(0.09)	(0.15)

The Consolidated Statement of Comprehensive Income should be read in conjunction with the notes to the financial statements.

17.3.2 Consolidated Statement of Financial Position

As at 31 December 2022

	Note	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Assets			
Current assets			
Cash and cash equivalents	10	134,107	175,416
Trade and other receivables	11	6,316	4,030
Contract assets	12	42	79
Inventories	13	155	138
Total current assets		140,620	179,663
Non-current assets			
Investments accounted for using equity method	25	974	1,214
Exploration and evaluation expenditure	14	30,135	20,440
Property, plant and equipment	15	70,280	51,490
Right-of-use	16	3,377	2,990
Intangible assets	17	3,068	3,633
Deferred tax assets	18	1,681	1,710
Total non-current assets		109,515	81,477
Total Assets		250,135	261,140
Liabilities			
Current liabilities			
Trade and other payables	19	9,418	8,354
Lease liabilities	16	646	439
Income tax liabilities	8(d)	91	332
Deferred income	20	132	-
Provisions	21	752	608
Total Current liabilities		11,039	9,733
Non-current liabilities			
Lease liabilities	16	2,670	2,566
Provisions	21	110	55
Deferred income	20	1,453	-
Deferred tax liabilities	22	1,702	1,463
Total non-current liabilities		5,935	4,084
Total Liabilities		16,974	13,817
Net Assets		233,161	247,323
Equity			
Share capital	23	259,158	258,933
Reserves	24	15,875	16,812
Accumulated losses	37	(41,872)	(28,422)
Total Equity		233,161	247,323

The Consolidated Statement of Financial Position should be read in conjunction with the notes to the financial statements.

17.3.3 Consolidated Statement of Changes in Equity

For the short financial year ended 31 December 2022

Consolidated	Issued Capital €'000	Reserves €'000	Foreign Currency Reserve €'000	Accumulated Losses €'000	Total €'000
At 1 July 2022	258,933	8,995	7,817	(28,422)	247,323
Loss for the period	-	-	-	(13,450)	(13,450)
Other comprehensive loss	-	-	(1,648)	-	(1,648)
Total comprehensive loss for the period after tax	-	-	(1,648)	(13,450)	(15,098)
Transactions with owners in their capacity as owners:					
Issue of share capital	225	-	-	-	225
Share issue costs	-	-	-	-	-
Share-based payments	-	711	-	-	711
Balance at 31 December 2022	259,158	9,706	6,169	(41,872)	233,161

Consolidated	Issued Capital €'000	Reserves €'000	Foreign Currency Reserve €'000	Accumulated Losses €'000	Total €'000
At 1 July 2021	85,272	4,995	827	(9,571)	81,523
Loss for the period	-	-	-	(18,851)	(18,851)
Other comprehensive income	-	-	6,990	-	6,990
Total comprehensive loss for the period after tax	-	-	6,990	(18,851)	(11,861)
Transactions with owners in their capacity as owners:					
Issue of share capital	178,040	-	-	-	178,040
Share issue costs	(4,379)	-	-	-	(4,379)
Share-based payments	-	4,000	-	-	4,000
Balance at 30 June 2022	258,933	8,995	7,817	(28,422)	247,323

The Consolidated Statement of Changes in Equity should be read in conjunction with the notes to the financial statements.

17.3.4 Consolidated Statement of Cash Flows

For the short financial year ended 31 December 2022

		6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Cash flows from operating activities	Note		
Receipts from customers		3,496	3,799
Payments to suppliers and employees		(12,941)	(15,400)
Interest received		468	228
Other income		1,798	317
Interest paid		(239)	(291)
Net cash used in operating activities	10	(7,418)	(11,347)
Cash flows from investing activities			
Payments for exploration and evaluation expenditure		(10,429)	(9,384)
Payment for plant and equipment		(20,094)	(22,793)
Payment to acquire subsidiary		-	(32,685)
Cash acquired upon acquisition of subsidiary		-	1,230
Payments to acquire financial assets		(1,245)	(30,008)
Proceeds from disposal of financial assets		-	29,282
Net cash used in investing activities		(31,768)	(64,358)
Cash flows from financing activities			
Proceeds from issue of shares		-	176,208
Share issue costs		-	(4,378)
Lease repayments		(462)	(185)
Repayment of loan to Associate		-	409
Net cash used in/from financing activities		(462)	172,054
Net increase/(decrease) in cash and cash equivalents		(39,648)	96,349
Cash and cash equivalents at beginning of the period/year		175,416	72,494
Effect of exchange rate fluctuations		(1,661)	6,573
Cash and cash equivalents at end of the period/year		134,107	175,416

The Consolidated Statement of Cash Flows should be read in conjunction with the notes to the financial statements.

17.3.5 Notes to the Consolidated Financial Statements

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of the financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

(a) Reporting Entity

Vulcan Energy Resources Limited (referred to as "Vulcan" or the "Company") is a company domiciled in Australia. The address of the Company's registered office and principal place of business is Level 11, Brookfield Place, 125 St Georges Terrace, Perth WA 6000. The consolidated financial statements of the Company as at and for the period ended 31 December 2022 comprise the Company and its subsidiaries (together referred to as the "consolidated entity" or the "Group"). The principal activity of the Group is geothermal energy and lithium exploration and production.

(b) Basis of Preparation

Statement of compliance

The consolidated financial statements are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") and the Corporations Act 2001. The consolidated financial statements comply with International Financial Reporting Standards ("IFRS") adopted by the International Accounting Standards Board ("IASB"). Vulcan Energy Resources Limited is a for-profit entity for the purpose of preparing the financial statements.

The annual report was authorised for issue by the Board of Directors on 22 March 2023.

Comparatives

The consolidated entity's current accounting period is the 6-months ended 31 December 2022, and the comparative is 12-month period due to the consolidated entity changing its accounting year end to a 31 December balance date.

Functional and presentation currency

Items included in the financial statements of each of the consolidated entities are measured using the currency of the primary economic environment in which the entity operates ("functional currency"). The consolidated financial statements are presented in Euro, which is Vulcan Energy Resources Limited's presentation currency.

Basis of measurement

The consolidated financial statements have been prepared on a going concern basis in accordance with the historical cost convention, unless otherwise stated.

Parent entity information

In accordance with the Corporations Act 2001, these financial statements present the results of the consolidated entity only. Supplementary information about the parent entity is disclosed in Note 38.

Rounding of amounts

The company is of a kind referred to in Corporations Instrument 2016/191, issued by the Australian Securities and Investments Commission, relating to 'rounding-off'. Amounts in this report have been rounded off in accordance with that Corporations Instrument to the nearest thousand Euro, unless otherwise stated.

New or amended Accounting Standards and Interpretations adopted

The consolidated entity has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period.

Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

Current and non-current classification

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

Deferred tax assets and liabilities are always classified as non-current.

New standards and interpretations not yet mandatory or early adopted

Australian Accounting Standards and Interpretations relevant to the Group that have recently been issued or amended but are not yet mandatory, have not been adopted by the Group for the annual reporting period ended 31 December 2022. The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations.

The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations but does not expect it to have a significant impact on the Group's results.

Significant Judgements and Estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the consolidated entity's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 2.

(c) Principles of Consolidation***Subsidiaries***

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of Vulcan Energy Resources Limited ('Company' or 'parent entity') as at 31 December 2022 and the results of all subsidiaries for the 6 month period then ended.

Subsidiaries are all entities (including special purpose entities) over which the consolidated entity has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one-half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the consolidated entity controls another entity.

Subsidiaries are fully consolidated from the date on which control is transferred to the consolidated entity. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between consolidated entity companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the consolidated entity.

The acquisition method of accounting is used to account for business combinations by the consolidated entity. A change in ownership interest, without the loss of control, is accounted for as an equity transaction, where the difference between the consideration transferred and the book value of the share of the non-controlling interest acquired is recognised directly in equity attributable to the parent.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of comprehensive income, statement of changes in equity and statement of financial position respectively.

Where the consolidated entity loses control over the subsidiary, it derecognises the assets including goodwill, liabilities and non-controlling interest in the subsidiary together with any cumulative transaction differences recognised in equity. The consolidated entity recognises the fair value of the consideration received and the fair value of any investment retained together with any gain or loss on profit or loss.

(d) **Foreign Currency Transactions**

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

(e) **Entity Functional Currency Different From Group Presentational Currency**

The assets and liabilities of entities with functional currency different from group presentational currency are translated into Euro using the exchange rates at the reporting date. The revenues and expenses of functional currency different from group presentational currency are translated into Euro using the average exchange rates, which approximate the rates at the dates of the transactions, for the period. All resulting foreign exchange differences are recognised in other comprehensive income through the foreign currency reserve in equity.

NOTE 2 CRITICAL ACCOUNTING ESTIMATES, JUDGEMENTS AND ASSUMPTIONS

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses.

Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions in these financial statements that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period are disclosed below.

Exploration and evaluation expenditure

Exploration and evaluation costs have been capitalised on the basis that the consolidated entity will commence commercial production in the future, from which time the costs will be amortised in proportion to the depletion of the mineral resources. Key judgements are applied in considering costs to be capitalised which includes determining expenditures directly related to these activities and allocating overheads between those that are expensed and capitalised. In addition, costs are only capitalised that are expected to be recovered either through successful development or sale of the relevant mining interest. Factors that could impact the future commercial production at the mine include the level of reserves and resources, future technology changes, which could impact the cost of mining, future legal changes and changes in commodity prices. To the extent that capitalised costs are determined not to be recoverable in the future, they will be written off in the period in which this determination is made.

Share-based payments

The Group measures the cost of equity settled transactions with Directors, employees and consultants, where applicable, by reference to the fair value of equity instruments at the date at which they are granted. The fair value is determined using an appropriate valuation model taking into account the terms and conditions upon which the instruments were granted. The accounting estimates and assumptions relating to equity-settled share-based payments would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact profit or loss and equity.

Estimation of useful lives of assets

The consolidated entity determines the estimated useful lives and related depreciation and amortisation charges for its plant and equipment. The useful lives could change significantly as a result of technical innovations or some other event. The depreciation and amortisation charge will increase where the useful lives are less than previously estimated lives, or technically obsolete or non-strategic assets that have been abandoned or sold will be written off or written down.

Goodwill and other indefinite life intangible assets

The consolidated entity tests annually, or more frequently if events or changes in circumstances indicate impairment, whether goodwill and other indefinite life intangible assets have suffered any impairment, in accordance with the accounting policy stated in note 1. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of assumptions, including estimated discount rates based on the current cost of capital and growth rates of the estimated future cash flows. Refer to note 16 for further information.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets

The consolidated entity assesses impairment of non-financial assets other than goodwill and other indefinite life intangible assets at each reporting date by evaluating conditions specific to the consolidated entity and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Income tax

The consolidated entity is subject to income taxes in the jurisdictions in which it operates. Significant judgement is required in determining the provision for income tax. There are many transactions and calculations undertaken during the ordinary course of business for which the ultimate tax determination is uncertain. The consolidated entity recognises liabilities for anticipated tax audit issues based on the consolidated entity's current understanding of the tax law. Where the final tax outcome of these matters is different from the carrying amounts, such differences will impact the current and deferred tax provisions in the period in which such determination is made.

Recovery of deferred tax assets

Deferred tax assets are recognised for deductible temporary differences only if the consolidated entity considers it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Lease term

The lease term is a significant component in the measurement of both the right-of-use asset and lease liability. Judgement is exercised in determining whether there is reasonable certainty that an option to extend the lease or purchase the underlying asset will be exercised, or an option to terminate the lease will not be exercised, when ascertaining the periods to be included in the lease term. In determining the lease term, all facts and circumstances that create an economical incentive to exercise an extension option, or not to exercise a termination option, are considered at the lease commencement date. Factors considered may include the importance of the asset to the consolidated entity's operations; comparison of terms and conditions to prevailing market rates; incurrence of significant penalties; existence of significant leasehold improvements; and the costs and disruption to replace the asset. The consolidated entity reassesses whether it is reasonably certain to exercise an extension option, or not exercise a termination option, if there is a significant event or significant change in circumstances.

Incremental borrowing rate

Where the interest rate implicit in a lease cannot be readily determined, an incremental borrowing rate is estimated to discount future lease payments to measure the present value of the lease liability at the lease commencement date. Such a rate is based on what the consolidated entity estimates it would have to pay a third party to borrow the funds necessary to obtain an asset of a similar value to the right-of-use asset, with similar terms, security and economic environment.

NOTE 3 SEGMENT INFORMATION**Accounting Policy****Segment Reporting**

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board. Management has determined that based on the report reviewed by the Board and used to make strategic decisions, that the consolidated entity has three reportable segments.

Identification of reportable operating segments

The consolidated entity is organised into three operating segments based on geographical location: Germany, Other European (comprised of France, Norway and Italy) and Australia. These operating segments are based on the internal reports that are reviewed and used by the Board of Directors (who are identified as the Chief Operating Decision Makers (CODM)) in assessing performance and in determining the allocation of resources. There is no aggregation of operating segments.

The CODM reviews EBITDA (earnings before interest, tax, depreciation and amortisation). The accounting policies adopted for internal reporting to the CODM are consistent with those adopted in the financial statements.

The information reported to the CODM is on a monthly basis.

Types of products and services

Germany – the supply of geothermal energy, exploration relating to the Zero Carbon Lithium Project™ and engineering services

France, Norway and Italy – exploration relating to battery minerals and geothermal lithium.

Australia – administration and Definitive Feasibility Study ("DFS") ongoing costs.

Intersegment transactions

Intersegment transactions were made at market rates. Engineering services have been provided within the German segment. All intersegment receivables and payables, including the profit margin, are eliminated on consolidation

Major customers

During the period ended 31 December 2022, approximately €3.1m (30 June 2022: €3.0m) of the consolidated entity's external revenue was derived from sales to Pfalzwerke.

For the 6 months ended 31 December 2022

Segment performance	Germany	Other European	Administration Australia	Total
	€'000	€'000	€'000	€'000
Revenue				
Sales to external customers	3,622	-	-	3,622
Intersegment sales - Other own work capitalised	3,489	-	-	3,489
Other income	213	-	-	213
Finance income	155	-	460	615
Loss from equity accounted investment	-	-	(249)	(249)
Total segment revenue	7,479	-	211	7,690
				-
EBITDA	(6,941)	-	(4,751)	(11,692)
Depreciation and amortisation	(2,285)	-	(14)	(2,299)
Finance expense	(62)	-	(115)	(177)
Finance income	155	-	460	615
Loss before income tax expense	(9,133)	-	(4,420)	(13,553)
Income tax expense	103	-	-	103

Loss after income tax expense	(9,030)	-	(4,420)	(13,450)
Material items include:				
Employee benefit expense	(7,334)	-	(763)	(8,097)
Share based payments expense	-	-	(711)	(711)

For the 6 months ended 31 December 2022 (CONT.)

	Germany	Other European	Administration Australia	Total
Assets				
Segment assets	164,779	195	425,784	590,758
Intersegment eliminations	-	-	-	(340,623)
Total assets	-	-	-	<u>250,135</u>
Total assets include:				
Investments accounted for using equity method	-	-	974	974
Exploration and evaluation expenditure additions	4,463	32	5,675	10,170
Capital additions	20,304	-	-	20,304
Liabilities				
Segment liabilities	21,881	103	176,578	198,562
Intersegment eliminations	-	-	-	(181,588)
Total Liabilities	-	-	-	<u>16,974</u>

For the year ended 30 June 2022

Segment performance	Germany	Other European	Australia	Total
30/06/2022	€'000	€'000	€'000	€'000
Revenue				
Sales to external customers	3,799	-	-	3,799
Intersegment sales – Other own work capitalised	3,696	-	-	3,696
Other income	317	-	-	317
Finance income	199	-	151	350
Gain on deconsolidation	-	-	1,975	1,975
Loss from equity accounted investment	-	-	(495)	(495)
Total segment revenue	8,011	-	1,631	9,642
EBITDA	(7,192)	-	(8,860)	(16,052)
Depreciation and amortisation	(2,629)	-	-	(2,629)
Finance expense	(33)	-	(122)	(155)
Finance income	199	-	151	350
Loss before income tax expense	(9,655)	-	(8,831)	(18,486)
Income tax expense	(365)	-	-	(365)
Loss after income tax expense	(10,020)	-	(8,831)	(18,851)
Material items include:				
Employee benefit expense	(6,784)	-	(1,009)	(7,793)
Share based payments expense	-	-	(3,637)	(3,637)
	Germany	Other European	Administration Australia	Total
Assets				
Segment assets	115,874	160	263,218	379,252
Intersegment eliminations	-	-	-	(118,112)
Total assets	-	-	-	261,140
Total assets include:				
Investments accounted for using equity method	-	-	1,214	1,214
Exploration and evaluation expenditure additions	3,656	33	7,735	11,424
Capital additions	24,149	-	-	24,149

	Germany	Other European	Administration Australia	Total
Liabilities				
Segment liabilities	16,796	160	3,527	20,483
Intersegment eliminations	-	-	-	(6,666)
Total Liabilities	-	-	-	<u>13,817</u>

NOTE 4 REVENUE

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
<i>Revenue from contract with customers</i>		
Sale of goods	3,128	2,977
Rendering of services	494	822
	<u>3,622</u>	<u>3,799</u>
Revenue from continuing operations	<u>3,622</u>	<u>3,799</u>

	Electricity sales		Engineering sales		Total	
	6-months	12 months	6-months	12-months	6-months	12-months
	31 Dec 2022	30 June 2022	31 Dec 2022	30 June 2022	31 Dec 2022	30 June 2022
	€'000	€'000	€'000	€'000	€'000	€'000
Timing of revenue recognition						
Goods transferred at a point in time	3,128	2,977	-	-	3,128	2,977
Services transferred over time	-	-	494	822	494	822
	<u>3,128</u>	<u>2,977</u>	<u>494</u>	<u>822</u>	<u>3,622</u>	<u>3,799</u>

All revenues are derived from Germany.

Accounting Policy

The consolidated entity recognises revenue as follows:

Revenue from contracts with customers

Revenue is recognised at an amount that reflects the consideration to which the consolidated entity is expected to be entitled in exchange for transferring goods or services to a customer. For each contract with a customer, the consolidated entity: identifies the contract with a customer; identifies the performance obligations in the contract; determines the transaction price which takes into account estimates of variable consideration and the time value of money; allocates the transaction price to the separate performance obligation on the basis of the relative stand-alone selling price of each distinct good or service to be delivered ; and recognises revenue when or as each performance obligation is satisfied in a manner that depicts the transfer to the customer of the goods and services promised.

Variable consideration within the transaction price, if any, reflects concessions provided to the customer such as discounts, rebates and refunds, any potential bonuses receivable from the customer and any other contingent events. Such estimates are determined using either the 'expected value' or 'most likely amount' method. The measurement of variable consideration is subject to a constraining principle whereby revenue will only be recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. The measurement constraint continues until the uncertainty associated with the variable consideration is subsequently resolved. Amounts received that are subject to the constraining principle are recognised as a refund liability.

Sale of goods

Revenue from the sale of goods is recognised at the point in time when the customer obtains control of the goods, which is generally at the time of delivery.

Rendering of services

Revenue from a contract to provide services is recognised over time as the services are rendered based on either a fixed price or an hourly rate.

NOTE 5 OTHER INCOME

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Government grants	151	317
Other income	37	-
Reversal of provision for expected credit losses	25	-
	<u>213</u>	<u>317</u>
	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Other own work capitalised	3,489	3,696
	<u>3,489</u>	<u>3,696</u>

Accounting Policy**Other revenue**

Other revenue is recognised when it is received or when the right to receive payment is established.

Other own work capitalised

Vulcan Energy Engineering GmbH VEE, Vulcan Energy Subsurface Solutions GmbH provide services to Vulcan Energie Ressourcen GmbH, a wholly owned subsidiary of Vulcan Energy Resources Limited which have been capitalised to exploration and evaluation expenditure and property, plant and equipment. These services are disclosed in the statement of profit or loss and other comprehensive income as other own work capitalised. The expenses incurred by Vulcan Energy Engineering GmbH and Vulcan Energy Subsurface Solutions GmbH to provide these services are disclosed in the statement of profit or loss and other comprehensive income as employee benefit expenses. Other own work capitalised also includes the capitalisation of Vercana staff costs relating to the refurbishment of electric drill rigs. Other own work capitalised does not relate to any external revenue or any profit margin charge to intercompany transactions.

NOTE 6 FINANCE INCOME/(COST)**Finance Income**

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Interest income	615	350
	<u>615</u>	<u>350</u>

Accounting Policy**Interest**

Interest revenue is recognised as interest accrues.

NOTE 6 FINANCE INCOME/(COST) (CONT.)

Finance cost

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Interest expense- cash at bank and deposits	(115)	(122)
Interest expense- lease liabilities	(62)	(33)
	(177)	(155)

Accounting Policy*Finance costs*

Finance costs attributable to qualifying assets are capitalised as part of the asset. All other finance costs are expensed in the period in which they are incurred.

NOTE 7 EXPENSES

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
(a) Administrative expenses		
Accounting, audit and company secretarial fees	89	311
Travel expenses	362	372
General expenses	1,676	3,107
	<u>2,127</u>	<u>3,790</u>
(b) Consultancy and legal expenses		
Corporate advisory fees	88	286
Consulting fees	816	1,573
Legal fees	458	2,240
	<u>1,362</u>	<u>4,099</u>
(c) Employee benefit expense		
Wages and salaries	6,514	6,640
Other benefits	1,583	1,153
	<u>8,097</u>	<u>7,793</u>
(d) Depreciation and amortisation expenses		
Software	21	10
Property, plant and Equipment	1,284	1,897
Land and Buildings	44	43
Right of use assets	385	200
Intangible assets	565	479
	<u>2,299</u>	<u>2,629</u>

NOTE 8 INCOME TAX

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
(a) The components of tax expense/(benefit) comprise:		
Current tax	(369)	462
Deferred tax	266	(97)
Income tax expense reported in the of profit or loss and other comprehensive income	(103)	365
(b) The prima facie tax on loss from ordinary activities before income tax is reconciled to the income tax as follows:		
Loss before income tax expense	(13,553)	(18,486)
Prima facie tax benefit on loss before income tax at 30% (30 June 2022: 30%)	(4,066)	(5,546)
Tax effect of amounts that are not deductible/taxable in calculating taxable income		
Non-deductible expense	323	682
Tax losses and temporary differences not brought to account	2,394	3,688
Foreign corporate rate differential	1,246	1,541
Income tax (benefit)/expense	(103)	365
(c) Deferred tax assets/(liabilities) not brought to accounts are:		
Accruals	104	136
Prepayments	74	(107)
Other	1,837	2,308
Tax losses	5,122	2,461
Total deferred tax balances not brought to account	7,137	4,798

(d) As at 31 December 2022, the consolidated entity has income tax payable of €91,000 (30 June 2022:€332,000).

Except for the deferred tax assets (note 17) and deferred tax liabilities (note 20) recognised in the subsidiary, Natürlich Insheim GmbH, potential deferred tax assets attributable to tax losses and other temporary differences have not been brought to account at 31 December 2022 because the directors do not believe it is appropriate to regard realisation of the deferred tax assets as probable at this point in time. These benefits will only be obtained if:

- the consolidated entity derives future assessable income of a nature and of an amount sufficient to enable the benefit from the deductions for the expenditure to be realised; and
- no changes in tax legislation adversely affect the consolidated entity in realising the benefit from the deductions for the expenditure.

Accounting Policy

The income tax expense (revenue) for the year comprises current income tax expense (income) and deferred tax expense (income).

Current Tax

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

Deferred Tax

Deferred tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year as well as unused tax losses.

Current and deferred income tax expense (income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

Deferred tax assets and liabilities are ascertained based on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets also result where amounts have been fully expensed but future tax deductions are available. No deferred income tax will be recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax assets and liabilities are calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates enacted or substantively enacted at the end of the reporting period. Their measurement also reflects the manner in which management expects to recover or settle the carrying amount of the related asset or liability.

Deferred tax assets relating to temporary differences and unused tax losses are recognised only to the extent that it is probable that future taxable profit will be available against which the benefits of the deferred tax asset can be utilised.

Where temporary differences exist in relation to investments in subsidiaries, branches, associates, and joint ventures, deferred tax assets and liabilities are not recognised where the timing of the reversal of the temporary difference can be controlled and it is not probable that the reversal will occur in the foreseeable future.

Current tax assets and liabilities are offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities are offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

NOTE 9 LOSS PER SHARE

	6-months 31 Dec 2022	12-months 30 June 2022
	€'000	€'000
Net loss for the year €'000	(13,450)	(18,851)
Weighted average number of ordinary shares for basic and diluted loss per share	143,332,764	124,671,203
Basic and diluted loss per share (Euro)	(0.09)	(0.15)

Accounting Policy

Basic Loss Per Share

Basic loss per share is determined by dividing net profit or loss after income tax attributable to members of the Company, excluding any costs of servicing equity other than ordinary shares, by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the year.

Diluted Loss Per Share

Diluted loss per share adjusts the figures used in the determination of basic earnings per share to take into account the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential ordinary shares.

NOTE 10 CASH AND CASH EQUIVALENTS

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Cash at bank and in hand	12,515	150,378
Short-term deposits	121,592	25,038
	<u>134,107</u>	<u>175,416</u>

Reconciliation of net loss after tax to net cash flows from operations

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Loss for the financial period/year	(13,450)	(18,851)
Share based payment expense	711	3,637
Impairment expenses	-	36
Depreciation and amortisation expenses	2,299	2,629
Share issued in exchange for services	225	478
Gain on deconsolidation	-	(1,975)
Loss from equity accounted investments	249	495
Foreign exchange differences	394	105
Changes in assets		
Trade and other receivables	(1,041)	(697)
Trade and other payables	3,339	2,249
Movement in provisions	(144)	547
Net cash used in operating activities	(7,418)	(11,347)

Accounting Policy

Cash and cash equivalents

Cash at bank earns interest at floating rates based on daily deposit rates. Short-term deposits are made in varying periods between one day and three months, depending on the immediate cash requirements of the Group and earn interest at the respective short-term deposit rates.

NOTE 11 TRADE AND OTHER RECEIVABLES

	31 Dec 2022		30 June 2022	
	€'000		€'000	
Trade receivables	1,296		655	
Allowance for expected credit losses	(34)		(43)	
Prepayments	1,033		331	
Other receivables	2,776		2,967	
Other - bank guarantees	1,245		120	
	6,316		4,030	

	Expected credit loss rate		Carrying amount		Allowance for ECL	
	31 Dec 2022	30 June 2022	31 Dec 2022	30 June 2022	31 Dec 2022	30 June 2022
Consolidated	%	%	€'000	€'000	€'000	€'000
not overdue	0%	0%	1,228	569	-	-
overdue	50%	50%	68	86	34	43
			1,296	655	34	43

Allowance for expected credit loss

Trade and other receivables are non-interest bearing and are generally on terms of 30 days. A provision for €35,000 (30 June 2022: €43,000) has been recorded to cover expected credit loss.

Accounting Policy

Trade and other receivables

Trade and other receivables include amounts due from customers for goods sold and services performed in the ordinary course of business. Trade and other receivables are initially recognised at fair value and subsequently measured at amortised cost using effective interest method less any allowance for expected credit loss. Receivables expected to be collected within 12 months of the end of the reporting period are classified as current assets.

Goods and Services Tax ('GST')

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position.

Commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to, the tax authority. Cash flows are presented in the statement of cash flows on a gross basis, except for the GST on investing and financial activities, which are disclosed as operating cash flows.

Value Added Tax ("VAT")

Revenues expenses and assets are recognised net of VAT, except where the amount of VAT incurred is not recoverable from the German tax authority. In these circumstances the VAT is recognised as part of the cost of acquisition or parts of the expense. Receivables and payables are stated inclusive of the amount of VAT receivable or payable. The net amount of VAT recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position. Cash flows are presented in the statement of cash flows on a gross basis, except for the VAT on investing and financial activities, which are disclosed as operating cash flows.

Investments and other financial assets

Investments and other financial assets are initially measured at fair value. Transaction costs are included as part of the initial measurement, except for financial assets at fair value through profit or loss. Such assets are subsequently measured at either amortised cost or fair value depending on their classification. Classification is determined based on both the business model within which such assets are held and the contractual cash flow characteristics of the financial asset unless an accounting mismatch is being avoided.

Financial assets are derecognised when the rights to receive cash flows have expired or have been transferred and the consolidated entity has transferred substantially all the risks and rewards of ownership. When there is no reasonable expectation of recovering part or all of a financial asset its carrying value is written off.

Financial assets at fair value through profit or loss

Financial assets not measured at amortised cost or at fair value through other comprehensive income are classified as financial assets at fair value through profit or loss. Typically, such financial assets will be either: (i) held for trading, where they are acquired for the purpose of selling in the short-term with an intention of making a profit, or a derivative; or (ii) designated as such upon initial recognition where permitted. Fair value movements are recognised in profit or loss.

Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income include equity investments which the consolidated entity intends to hold for the foreseeable future and has irrevocably elected to classify them as such upon initial recognition.

Impairment of financial assets

The consolidated entity recognises a loss allowance for expected credit losses on financial assets which are either measured at amortised cost or fair value through other comprehensive income. The measurement of the loss allowance depends upon the consolidated entity's assessment at the end of each reporting period as to whether the financial instrument's credit risk has increased significantly since initial recognition, based on reasonable and supportable information that is available, without undue cost or effort to obtain.

Where there has not been a significant increase in exposure to credit risk since initial recognition, a 12-month expected credit loss allowance is estimated. This represents a portion of the asset's lifetime expected credit losses that is attributable to a default event that is possible within the next 12 months. Where a financial asset has become credit impaired or where it is determined that credit risk has increased significantly, the loss allowance is based on the asset's lifetime expected credit losses. The amount of expected credit loss recognised is measured on the basis of the probability weighted present value of anticipated cash shortfalls over the life of the instrument discounted at the original effective interest rate.

NOTE 12 CONTRACT ASSETS

	6-months 31 Dec 2022	12-months 30 June 2022
	€'000	€'000
Contract assets	<u>42</u>	<u>79</u>
	<u>42</u>	<u>79</u>

Reconciliation of the written down values at the beginning and end of the current and previous financial year are set out below

	6-months 31 Dec 2022	12-months 30 June 2022
	€'000	€'000
Opening balance	79	-
Transfer from inventory	<u>(37)</u>	<u>79</u>
Closing balance	<u>42</u>	<u>79</u>

Accounting policy

Contract assets

Contract assets are recognised when the consolidated entity has transferred goods and services to the customer but where the consolidated entity is yet to establish an unconditional right to consideration. Contract assets are treated as financial assets for impairment purposes.

NOTE 13 INVENTORIES

	6-months 31 Dec 2022	12-months 30 June 2022
	€'000	€'000
Spare parts	155	138
	155	138

Accounting policy***Inventories***

Raw materials, work in progress and finished goods are stated at the lower of cost and net realisable value on a "first in first out" basis. Cost comprises of direct materials and delivery costs, direct labour, import duties and other taxes, an appropriate proportion of variable and fixed overhead expenditure based on normal operating capacity, and, where applicable transfers from cash flow hedging reserves in equity. Costs of purchased inventory are determined after deducting rebates and discounts received or receivable.

NOTE 14 EXPLORATION AND EVALUATION EXPENDITURE

	6-months 31 Dec 2022	12-months 30 June 2022
	€'000	€'000
Carrying amount of exploration and evaluation expenditure	30,135	20,440
At the beginning of the period/year	20,440	8,722
Exploration expenditure incurred	10,400	11,273
Performance shares issued upon acquisition of GGH	-	363
Deconsolidation of Kuniko Ltd	-	(335)
Foreign exchange (Loss)/Gain	(705)	417
At the end of the period/year	30,135	20,440

Accounting Policy***Exploration and evaluation expenditure***

Acquisition, exploration, and evaluation costs associated with mining tenements are accumulated in respect of each identifiable area of interest. These costs are only carried forward to the extent that the rights of tenure to that area of interest are current and that the costs are expected to be recouped through the successful commercial development or sale of the area or where activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves.

Costs in relation to an abandoned area are written off in full against profit in the period in which the decision to abandon the area is made.

Each area of interest is also reviewed annually, and acquisition costs written off to the extent that they will not be recoverable in the future.

NOTE 15 PLANT AND EQUIPMENT

	31 Dec 2022 €'000	30 June 2022 €'000
Software	383	267
Plant & Equipment	27,411	26,859
Land & Buildings	1,536	1,580
Assets under Construction	40,950	22,784
	70,280	51,490

Movement in carrying amounts of plant and equipment for year ended 31 December 2022

	Software €'000	Plant and equipment €'000	Asset under construction €'000	Land and Building €'000	Total €'000
Cost					
At 1 July 2022	280	28,817	22,784	1,623	53,504
Additions	137	2,001	18,166	-	20,304
Disposals	-	(195)	-	-	(195)
At 31 December 2022	417	30,623	40,950	1,623	73,613
Accumulated Depreciation					
At 1 July 2022	(13)	(1,958)	-	(43)	(2,014)
Depreciation for the period	(21)	(1,284)	-	(44)	(1,349)
Depreciation eliminated on disposal	-	30	-	-	30
	(34)	(3,212)	-	(87)	(3,333)
Carrying amount					
At 1 July 2022	267	26,859	22,784	1,580	51,490
At 31 December 2022	383	27,411	40,950	1,536	70,280

Movement in carrying amounts of plant and equipment for year ended 30 June 2022

	Software	Plant and equipment	Asset under construction	Land and Building	Total
	€'000	€'000	€'000	€'000	€'000
Cost					
At 1 July 2021	112	417	470	-	999
Acquired in business combinations	34	26,508	191	1,623	28,356
Additions	134	1,892	22,123	-	24,149
At 30 June 2022	280	28,817	22,784	1,623	53,504
Accumulated Depreciation					
At 1 July 2021	(3)	(61)	-	-	(64)
Depreciation for the year	(10)	(1,897)	-	(43)	(1,950)
		-	-	-	-
	(13)	(1,958)	-	(43)	(2,014)
Carrying amount					
At 1 July 2021	109	356	470	-	935
At 30 June 2022	267	26,859	22,784	1,580	51,490

Accounting Policy

Property, plant and equipment

Property, plant and equipment is stated at historical cost less accumulated depreciation and impairment. Historical cost includes expenditure that is directly attributable to the acquisition of the items

Once assets are available for use, depreciation is calculated using the straight-line method to allocate asset costs over their estimated useful lives, as follows:

Software	3 -5 years
Plant & Equipment	2-15 years
Land & Buildings	20 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

NOTE 16 LEASE LIABILITIES & RIGHT OF USE

Right-of-use asset	Buildings	Vehicles	Hardware and Software	Technical Equipment	Land	Total
	€'000	€'000	€'000	€'000	€'000	€'000
Cost						
At 1 July 2022	2,908	261	21	-	-	3,190
Additions	492	251	-	14	23	780
At 31 December 2022	3,400	512	21	14	23	3,970
Accumulated Depreciation						
At 1 July 2022	(107)	(83)	(10)	-	-	(200)
Depreciation for the period	(307)	(65)	(5)	(3)	(5)	(385)
Foreign Exchange Gain/(Loss)	(8)	-	-	-	-	(8)
	(422)	(148)	(15)	(3)	(5)	(593)
Carrying amount						
At 1 July 2022	2,801	178	11	-	-	2,990
At 31 December 2022	2,978	364	6	11	18	3,377

Right-of-use asset	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Cost				
At 1 July 2021	334	38	-	372
Additions	2,908	261	21	3,190
Leases relinquished	(334)	(38)	-	(372)
At 30 June 2022	2,908	261	21	3,190
Accumulated Depreciation				
At 1 July 2021	10	4	-	14
Depreciation for the year	(107)	(83)	(10)	(200)
Eliminated upon relinquishment	(10)	(4)	-	(14)
	(107)	(83)	(10)	(200)
Carrying amount				
At 1 July 2021	324	34	-	358
At 30 June 2022	2,801	178	11	2,990

	Buildings	Vehicles	Hardware and Software	Technical Equipment	Land	Total
	€'000	€'000	€'000	€'000	€'000	€'000
Lease Liabilities						
At 1 July 2022	2,804	190	11	-	-	3,005
New lease liabilities entered during the period	492	248	-	13	23	776
Add: Interest	56	6	-	-	-	62
Less: Payment	(329)	(181)	(5)	(4)	(5)	(524)
Foreign Exchange Gain/(Loss)	(3)	-	-	-	-	(3)
Closing Balance	3,020	263	6	9	18	3,316
Represented by:						
Current lease liabilities	506	115	6	8	11	646
Non-current lease liabilities	2,512	150	-	1	7	2,670
	3,018	265	6	9	18	3,316

	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Lease Liabilities				
At 1 July 2021	325	28	-	353
New lease liabilities entered during the period	2,908	262	21	3,191
Leases relinquished	(325)	(28)	-	(353)
Add: Interest	27	6	-	33
Less: Payment	(131)	(78)	(10)	(219)
Closing Balance	2,804	190	11	3,005
Represented by:				
Current lease liabilities	326	104	9	439
Non-current lease liabilities	2,478	86	2	2,566
	2,804	190	11	3,005

Accounting Policy

Right-of-use assets:

A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and, except where included in the cost of inventories, an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Where the consolidated entity expects to obtain ownership of the leased asset at the end of the lease term, the depreciation is over its estimated useful life. Right-of-use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

The consolidated entity has elected not to recognise a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of low-value assets. Lease payments on these assets are expensed to profit or loss as incurred.

Lease liabilities

A lease liability is recognised at the commencement date of a lease. The lease liability is initially recognised at the present value of the lease payments to be made over the term of the lease, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the consolidated entity's incremental borrowing rate. Lease payments comprise of fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be paid under residual value guarantees, exercise price of a purchase option when the exercise of the option is reasonably certain to occur, and any anticipated termination penalties. The variable lease payments that do not depend on an index or a rate are expensed in the period in which they are incurred.

Lease liabilities are measured at amortised cost using the effective interest method. The carrying amounts are remeasured if there is a change in the following: future lease payments arising from a change in an index or a rate used; residual guarantee; lease term; certainty of a purchase option and termination penalties. When a lease liability is remeasured, an adjustment is made to the corresponding right-of use asset, or to profit or loss if the carrying amount of the right-of-use asset is fully written down.

The Group leases office space, a laboratory, vehicles and land through its German subsidiary Vulcan Energie Ressourcen GmbH as well as the subsidiaries of the German operating Company.

NOTE 17 INTANGIBLE ASSETS

	31 Dec 2022	30 June 2022
	€'000	€'000
Goodwill	1,076	1,076
Less: Impairment	(36)	(36)
	<u>1,040</u>	<u>1,040</u>
Customer contracts – at cost	1,526	1,526
Less: Accumulated amortisation	(904)	(386)
	<u>622</u>	<u>1,140</u>
Order backlog – at cost	46	46
Less: Accumulated amortisation	(46)	(46)
	<u>-</u>	<u>-</u>
Operating permit – at cost	1,500	1,500
Less: Accumulated amortisation	(94)	(47)
	<u>1,406</u>	<u>1,453</u>
Total Intangible Assets	<u>3,068</u>	<u>3,633</u>

Reconciliation of the written down values at the beginning and the end of the current and previous financial year are set out below:

	Customer Contracts €'000	Order backlog €'000	Operating Permit €'000	Goodwill €'000	TOTAL €'000
Balance at 1 July 2021	-	-	-	-	-
Acquired through business combinations	1,526	46	1,500	1,076	4,148
Less: amortisation	(386)	(46)	(47)	-	(479)
Less: Impairment	-	-	-	(36)	(36)
Balance at 30 June 2022	1,140	-	1,453	1,040	3,633
Less: amortisation	(518)	-	(47)	-	(565)
Balance at 31 December 2022	622	-	1,406	1,040	3,068

Impairment testing

Goodwill impairment test is conducted annually. The last goodwill impairment testing was performed on 30 June 2022. There are no indicators of impairment as at 31 December 2022.

Goodwill has been allocated to the following cash-generating units:

	€'000
Global Engineering & Consulting-Company GmbH (Gec-co) - renamed to Vulcan Energy Engineering GmbH	1,040
	<u>1,040</u>

The consolidated entity impaired the goodwill related to Insheim and GeoT as at 30 June 2022 amounted to €36,000.

The recoverable amount of the consolidated entity's goodwill has been determined by a value-in-use calculation using a discounted cash flow model, based on a 5 year projection period approved by management, together with terminal value.

The following key assumptions were used in the discounted cash flow model:

- 13.2% pre-tax discount rate
- 18% average per annum projected EBITDA

The discount rate of 13.2% pre-tax reflects management's estimate of the time value of money and Gec-co's weighted average cost of capital.

Sensitivity

As disclosed in note 2, the directors have made judgements and estimates in respect of impairment testing of goodwill. Should these judgements and estimates not occur the resulting goodwill carrying amount may decrease. The sensitivities are as follows:

- Pre-tax discount rate would be required to increase to 28.2% for goodwill to be impaired, with all other assumptions remaining constant.
- EBITDA would be required to decrease to 9% for goodwill to be impaired, with all other assumptions remaining constant.

Management believes that other reasonable changes in the key assumptions on which the recoverable amount of the engineering is based would not cause the cash-generating unit's carrying amount to exceed its recoverable amount.

If there are any negative changes in the key assumptions on which the recoverable amount of goodwill is based, this would result in further impairment charge for the engineering division's goodwill.

Accounting Policy

Goodwill and other indefinite life intangible assets

The consolidated entity tests annually, or more frequently if events or changes in circumstances indicate impairment, whether goodwill and other indefinite life intangible assets have suffered any impairment, in accordance with the accounting policy stated in note 1. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of assumptions, including estimated discount rates based on the current cost of capital and growth rates of the estimated future cash flows.

Intangible assets acquired as part of a business combination, other than goodwill, are initially measured at their fair value at the date of the acquisition. Intangible assets acquired separately are initially recognised at cost. Indefinite life intangible assets are not amortised and are subsequently measured at cost less any impairment. Finite life intangible assets are subsequently measured at cost less amortisation and any impairment. The gains or losses recognised in profit and loss arising from the derecognition of intangible assets are measured as the difference between the net disposal proceeds and the carrying amount of the intangible asset. The method and useful lives of finite life intangible assets are reviewed annually. Changes in the expected pattern of consumption or useful life are accounted for prospectively by changing the amortisation method or period.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets

The consolidated entity assesses impairment of non-financial assets other than goodwill and other indefinite life intangible assets at each reporting date by evaluating conditions specific to the consolidated entity and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Recoverable amount is the higher of an asset's fair value less costs of disposal and value-in-use. The value-in-use is the present value of the estimated future cash flows relating to the asset using a pre-tax discount rate specific to the asset or cash-generating unit to which the asset belongs. Assets that do not have independent cash flows are grouped together to form a cash-generating unit.

NOTE 18 DEFERRED TAX ASSETS

	31 Dec 2022	30 June 2022
	€'000	€'000
Deferred tax asset comprises temporary differences attributable to:		
Other	47	18
Property, plant and equipment	1,634	1,692
Deferred tax asset	1,681	1,710
<i>Movements:</i>		
Opening balance	1,710	-
Additions through business combinations	-	1,768
Charged to income statement	(29)	(58)
Closing balance	1,681	1,710

NOTE 19 TRADE AND OTHER PAYABLES

	31 Dec 2022	30 June 2022
	€'000	€'000
Trade payables ⁽ⁱ⁾	6,479	6,183
Accrued expenses	1,190	802
Other payables	1,466	866
VAT Payable	283	503
	9,418	8,354

(i) Trade payables are non-interest bearing and are normally settled on 30-day terms.

Due to the short-term nature of these payables, their carrying value is assumed to be the same as their fair value.

Accounting Policy**Trade and other payables**

Trade payables and other payables represent liabilities for goods and services provided to the Group prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

NOTE 20 DEFERRED INCOME

	31 Dec 2022	30 June 2022
	€'000	€'000
Current	132	-
Government grants	132	-
Non-current	1,453	-
Government grants	1,453	-

Accounting Policy

Government grants

Government grants are not recognised until there is a reasonable assurance that the Group will comply with the conditions attached to them and that the grants will be received.

The assistance from the European Union aims to support the Group in testing, development and optimisations in production of geothermal energy. Unfulfilled conditions relate to the spend requirements as part of the grant acquittal processes which will be validated by the European Union at the next reporting period, 31 December 2023 for the income showing as current deferred income, and in November 2024 for the remaining balance.

NOTE 21 PROVISIONS

Current:

	31 Dec 2022	30 June 2022
	€'000	€'000
Annual leave provision	752	608
	752	608

Non-Current:

Other provisions	110	55
	110	55

Amounts not expected to be settled within the next 12 months

The current provision for employee benefits includes all unconditional entitlements where employees have completed the required period of service and also those where employees are entitled to pro-rata payments in certain circumstances. The entire amount is presented as current, since the consolidated entity does not have an unconditional right to defer settlement. However, based on past experience, the consolidated entity does not expect all employees to take the full amount of accrued leave or require payment within the next 12 months.

Accounting Policy

Provisions

Provisions are recognised when the consolidated entity has a present (legal or constructive) obligation as a result of a past event, it is probable the consolidated entity will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation. If the time value of money is material, provisions are discounted using a current pre-tax rate specific to the liability. The increase in the provision resulting from the passage of time is recognised as a finance cost.

Employee benefits

Defined contribution superannuation expenses

Contributions to defined contribution superannuation plans are expensed in the period in which they are incurred.

Short-term employee benefits

Liabilities for wages and salaries, including non-monetary benefits, annual leave and long service leave expected to be settled wholly within 12 months of the reporting date are measured at the amounts expected to be paid when the liabilities are settled.

Other long-term employee benefits

The liability for annual leave and long service leave not expected to be settled within 12 months of the reporting date are measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on corporate bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

NOTE 22 DEFERRED TAX LIABILITIES

	31 Dec 2022	30 June 2022
	€'000	€'000
Deferred tax liability comprises temporary differences attributable to:		
Other	6	2
Property, plant and equipment	1,696	1,461
Deferred tax liabilities	<u>1,702</u>	<u>1,463</u>
<i>Movements:</i>		
Opening balance	1,463	-
	-	1,618
Additions through business combinations		
Charged to income statement	<u>239</u>	<u>(155)</u>
Closing balance	<u>1,702</u>	<u>1,463</u>

NOTE 23 CONTRIBUTED EQUITY

	31 Dec 22		30 Jun 22	
	No'000	€'000	No.'000	€'000
Fully paid ordinary shares	143,435	259,158	143,094	258,933

Ordinary shares

Ordinary shares entitle the holder to participate in the dividends and the proceeds on winding up in proportion to the number of and amounts paid on the shares held.

At shareholders meetings, each ordinary share is entitled to one vote when a poll is called, otherwise each shareholder has one vote on a show of hands.

Share buy-back

There is no current on-market share buy-back.

	Date	Number	Issue Price €	€'000
At 1 July 2022		143,094,049		258,933
Exercise of Class S performance rights	7/07/2022	12,897	-	-
Exercise of Class H performance rights	7/07/2022	80,909	-	-
Exercise of Class I performance rights	7/07/2022	89,091	-	-
Shares issued for services rendered	9/07/2022	58,355	3.86	225
Exercise of Class R performance rights	20/12/2022	100,000	-	-
At 31 December 2022		143,435,301	-	259,158

NOTE 23 CONTRIBUTED EQUITY (CONT.)

	Date	Number	Issue Price €	€'000
At 1 July 2021		108,422,717		85,272
Shares issued as consideration for acquisition of Gec-co.	6/07/2021	325,000	5.04	1,637
Shares issued as consideration for acquisition of GGH	6/07/2021	11,396	5.04	57
Shares issued for services rendered	19/08/2021	32,251	7.84	253
Placement	22/09/2021	14,814,815	8.35	123,680
Share Purchase Plan	18/10/2021	228,434	8.65	1,975
Exercise of warrants	1/12/2021	521,304	-	-
Placement	17/12/2021	65,317	8.47	553
Exercise of performance shares	17/12/2021	4,400,000	-	-
Exercise of performance rights	17/12/2021	2,786,364	-	-
Shares issued for services rendered	8/02/2022	37,492	6.00	225
Shares issued to Stellantis	27/06/2022	11,448,959	4.34	49,660
Less capital raising costs				(4,379)
At 30 June 2022		143,094,049		258,933

Accounting Policy

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds. Incremental costs directly attributable to the issue of new shares or options for the acquisition of a business are not included in the cost of the acquisition as part of the purchase consideration.

If the entity reacquires its own equity instruments, for example, as a result of a share buy-back, those instruments are deducted from equity and the associated shares are cancelled. No gain or loss is recognised in the profit or loss and the consideration paid including any directly attributable incremental costs (net of income taxes) is recognised directly in equity.

NOTE 24 RESERVES

	31 Dec 2022 €'000	30 June 2022 €'000
Share-based payment reserve	9,706	8,995
Foreign currency translation reserve	6,169	7,817
Total	15,875	16,812

NOTE 24 RESERVES (CONT.)

	Number of Warrants	Number of Performance Shares	Number of Performance Rights	€'000
<u>Movement reconciliation</u>	-		-	
On issue at 1 July 2022	-	91,174	8,656,324	8,995
Issue of performance rights during the year	-	-	393,374	-
Exercise of Performance Rights during the year	-	-	(282,897)	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 32)	-	-	-	711
Performance rights cancelled	-	-	(24,000)	-
Performance rights lapsed			(360,000)	
On issue at 31 December 2022	-	91,174	8,382,801	9,706

NOTE 24 RESERVES (CONT.)

	Number of Warrants	Number of Performance Shares	Number of Performance Rights	€'000
<u>Movement reconciliation</u>				
On issue at 1 July 2021	512,447	4,400,000	11,238,688	4,995
Issue of performance rights during the year	-	-	204,000	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 32)	-	-	-	3,289
Performance shares issued upon purchase of GGH	-	91,174	-	363
Recognition of share - based payment expense for performance rights issued to Vendors on Acquisition (Note 32)	-	-	-	218
Issue of unlisted options during the year	-	-	-	-
Exercise of unlisted options during the year	-	-	-	-
Exercise of Performance rights during the year	-	-	(2,786,364)	-
Issue of warrants during the year	8,857	-	-	-
Warrants exercised during the year	(521,304)	-	-	-
Recognition of shared based payment expense for warrants	-	-	-	130
Exercise of Performance Shares during the year	-	(4,400,000)	-	-
On issue at 30 June 2022	-	91,174	8,656,324	8,995

NOTE 24 RESERVES (CONT.)

The share-based payment reserve is used to record the value of share-based payments provided to outside parties, and share-based remuneration provided to employees and directors.

Foreign Currency Translation Reserve

	31 Dec 2022 €'000	30 June 2022 €'000
Balance at the beginning of the period/year	7,817	827
Movement during the period/year	(1,648)	6,990
Balance at the end of the period/year	6,169	7,817

The foreign currency translation reserve is used to recognise exchange differences arising from the translation of the financial statements of foreign operations to Euro.

NOTE 25 INVESTMENT IN ASSOCIATE

The Company's interest in Kuniko Limited is recognised as an investment in associate accounted for using the equity method. Subsequent to the deconsolidation, the Company's share of Kuniko Limited's loss for the period was offset against the investment resulting in the amount recognised as investment in associate as follows:

	31 Dec 2022 €'000	30 June 2022 €'000
Opening carrying value	1,214	1,709
Share of loss - associate	(249)	(474)
Share of other comprehensive income/(loss) - associate	9	(21)
Investment in associate	974	1,214

NOTE 25 INVESTMENT IN ASSOCIATE (CONT.)

Interests in associates are accounted for using the equity method of accounting. Information relating to associates that are material to the consolidated entity are set out below:

Name	Principal place of business / Country of incorporation	Ownership interest	
		31 December 2022 %	30 June 2022 %
Kuniko Ltd	Australia	21.15%	21.15%

Kuniko Ltd		
	31 Dec 2022 €'000	30 June 2022 €'000
<i>Summarised statement of financial position</i>		
Current assets	4,921	6,985
Non-current assets	3,016	2,665
Total assets	7,937	9,650
Current liabilities	(241)	(678)
Non-current liabilities	-	-
Total liabilities	(241)	(678)
Net assets/(liabilities)	7,696	8,972
	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
<i>Summarised statement of profit or loss and other comprehensive income</i>		
Revenue	-	-
Expenses	(1,177)	(1,391)
Loss before income tax	(1,177)	(1,391)
Income tax expense	-	-
Loss after income tax	(1,177)	(1,391)
Other comprehensive loss	42	(115)
Total comprehensive loss	(1,135)	(1,506)

NOTE 25 INVESTMENT IN ASSOCIATE (CONT.)

Accounting policy

Associates

Associates are entities over which the consolidated entity has significant influence but not control or joint control. Investments in associates are accounted for using the equity method. Under the equity method, the share of the profits or losses of the associate is recognised in profit or loss and the share of the movements in equity is recognised in other comprehensive income. Investments in associates are carried in the statement of financial position at cost plus post-acquisition changes in the consolidated entity's share of net assets of the associate. Goodwill relating to the associate is included in the carrying amount of the investment and is neither amortised nor individually tested for impairment. Dividends received or receivable from associates reduce the carrying amount of the investment.

When the consolidated entity's share of losses in an associate equals or exceeds its interest in the associate, including any unsecured long-term receivables, the consolidated entity does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The consolidated entity discontinues the use of the equity method upon the loss of significant influence over the associate and recognises any retained investment at its fair value. Any difference between the associate's carrying amount, fair value of the retained investment and proceeds from disposal is recognised in profit or loss.

NOTE 26 ACQUISITION OF SUBSIDIARY

No acquisitions occurred in the period ending 31 December 2022.

In the prior year, the following acquisitions occurred:

Global Geothermal Holding UG

On 2 July 2021 Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of the shares in Global Geothermal Holding UG ('**GGH**') with an effective date on 2 July 2021 (closing-date). Dr Horst Kreuter, CEO of Vulcan Energie Ressourcen GmbH, and a related party of Vulcan Energy Resources Limited, and Mr Thorsten Weimann, Chief Operating Officer and a related party of Vulcan Energy Resources Limited were the sole shareholders of GGH.

With a share price at closing date of €5.04 (AUD7.90), the agreed purchase price for 11,396 ordinary shares amounted to €57,411.

Additionally, 91,174 performance shares with a fair value €363,307 have been recognised as deferred consideration, based on management's assessment of the probability of achieving the performance milestones. The performance shares were issued in equal number to Dr Horst Kreuter and Mr Thorsten Weimann. Milestones as follows:

The Performance Shares will convert into Shares upon achievement of any of the following in relation to any of the licenses held by GGH:

- (a) the Company (or any of its subsidiaries) obtaining a positive approval for geothermal brine production from the relevant governmental authority following a provisional environmental impact assessment;
- (b) the Company (or any of its subsidiaries) obtaining approval for the construction and operation of a main operating plant under Germany's Federal Mining Act (BBergG);
- (c) the Company (or any of its subsidiaries) obtaining the first approval for a special operating plan in accordance with BBergG;
- (d) the Company (or any of its subsidiaries) the first approval or pre-approval from the relevant governmental authority for the construction of a geothermal plant; or
- (e) the Company (or any of its subsidiaries) obtaining the first approval or pre-approval from the relevant governmental authority for the construction of a direct lithium extraction (lithium conveying) plant.

NOTE 26 ACQUISITION OF SUBSIDIARY (CONT.)

Purchase Consideration:	€
Shares issued	57,411
Performance shares issued (refer to note 13)	363,307
Net consideration	420,718

Net Assets Acquired:	€
Fair value of net liabilities acquired	(1,193)
Exploration and evaluation expenditure	421,911
Net assets acquired	420,718

Management has determined that the acquisitions do not meet the definition of a business within AASB 3 Business Combinations. The transactions have been accounted for as an asset acquisition.

Since GGH is an entity which holds exploration licences including Taro where the majority of the indicated resources is generated from, the acquisition of GGH is considered an asset acquisition rather than a business combination.

Accounting Policy*Asset Acquisition not constituting a Business*

When an asset acquisition does not constitute a business combination, the assets and liabilities are assigned a carrying amount based on their relative fair values in an asset purchase transaction and no deferred tax will arise in relation to the acquired assets and assumed liabilities as the initial recognition exemption for deferred tax under AASB 112 applies. No goodwill will arise on the acquisition and transaction costs of the acquisition will be included in the capitalised cost of the asset.

NOTE 27 INTERESTS IN SUBSIDIARIES

The consolidated financial statements incorporate assets, liabilities and results of the following wholly-owned subsidiaries in accordance with the accounting policy described in note 1

Entity	Location	Primary activity	Date of foundation or acquisition	Ownership Interest 31 December 2022 (%)	Ownership Interest 30 June 2022 (%)
Vulcan Energie Ressourcen GmbH	Karlsruhe	Operating entity	September 26, 2019	100	100
Vulcan Energy Europe Pty Limited	Perth	Operating entity	October 11, 2019	100	100
Global Geothermal Holding UG	Karlsruhe	Group holding	July 2, 2021	100	100
Vulcan Energy Subsurface Solutions GmbH	Karlsruhe	Operating entity	July 2, 2021	100	100
Vulcan Energy Engineering GmbH	Augsburg	Operating entity	July 2, 2021	100	100
Vulcan Geothermal GmbH	Karlsruhe	Group holding	July 09, 2021	100	100
VER GEO LIO GmbH	Karlsruhe	Group holding	July 12, 2021	100	100
Vercana GmbH	Karlsruhe	Operating entity	December 09, 2021	100	100
Natürlich Insheim GmbH	Karlsruhe (previously: Ludwigshafen)	Operating entity	December 31, 2021	100	100
Vulcan Energy Italy Pty Limited	Perth	Operating entity	July 5, 2021	100	100
Vulcan Energie France SAS	France	Operating entity	June 22, 2022	100	100

NOTE 28 BUSINESS COMBINATIONS

No business combinations occurred in the period ending 31 December 2022. In the prior year, the following business combinations occurred:

Natürlich Insheim GmbH (previously: Pfalzwerke Geofuture GmbH)

VER GEO LIO GmbH, an indirect subsidiary of Vulcan Energy Resources Limited, acquired 100% shares in Natürlich Insheim GmbH ('**Natürlich Insheim**'), in accordance with the Share Purchase Agreement, with an effective date on 31 December 2021 (closing-date).

The preliminary purchase price for the acquisition of Natürlich Insheim amounted to €32,684,814 and was paid in cash. The preliminary purchase price has been adjusted by €1,410,417 based on the purchase price adjustments stated in the Share Purchase Agreement. Therefore, the adjusted purchase price amounts to €31,274,397 and is now final.

The acquired business contributed revenues of €2,976,987 and a loss after tax of €105,243 to the consolidated entity for the period 1 January 2022 to 30 June 2022. If the acquisition occurred on 1 July 2021 the full year contributions would have been revenues of €5,953,974, a loss after tax of €210,486 and EBITDA of €1,352,836.

Natürlich Insheim owns and operates a geothermal power plant in Insheim, Germany.

The values identified in relation to the acquisition of Insheim are final as at 30 June 2022.

Details of the acquisition are as follows:

	€'000
Cash	922
Trade and other receivables	754
Inventory	138
Property, plant & equipment	28,313
Deferred tax asset	1,747
Trade and other payables	(894)
Other provisions	(50)
Fair value of net assets acquired	30,930
Goodwill	35
Operating permit	1,500
Intangibles acquired on acquisition	1,535
Deferred tax liabilities arising on acquisition	(1,191)
Acquisition-date fair value of total consideration	31,274

Representing:

	€'000
Cash paid	32,685
Loan repayment to Pfalzwerke Geofuture GmbH	(1,300)
Profit transfer adjustment	(111)
Total consideration	31,274

NOTE 28 BUSINESS COMBINATIONS (CONT.)

Gec-co Global Engineering & Consulting-Company GmbH

Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of geothermal surface consultancy company, Global Engineering and Consulting - Company GmbH ('Gec-co'), in accordance with the Share Purchase Agreement, with an effective date on 2 July 2021 (closing-date). Mr Thorsten Weimann, Chief Operating Officer of Vulcan Energy Resources Limited is the sole shareholder of Gec-co.

325,000 fully paid ordinary shares of Vulcan Energy Resources Limited were issued, totalling to €1,627,720 based on a share price at closing date of €5.01 (AUD7.93).

This is an engineering business and operates in the renewables sector. The goodwill of €1.040m represents the expected synergies from merging this business with the other entities and reducing external consultancy costs. The acquired business contributed revenues (including other own works capitalised) of €2,979,154 for sale of services and loss after tax of €900,073 to the consolidated entity for the period from 2 July 2021 to 30 June 2022. As the acquisition occurred on 2 July 2022, the full year contribution is the same as above.

Additionally, a cash payment of €862,750 linked to project development milestones of the Vulcan Zero Carbon Lithium™ Project has been recognised as deferred consideration, based on management's assessment of the probability of achieving the milestones. Milestones as follows:

- (a) The first building permit for the construction of an ORC (geothermal) plant is granted;
- (b) The first building permit or approval pursuant to the German Federal Immission Control Act (BImSchG) for the construction of a DLE (lithium extraction) plant is granted.

The values identified in relation to the acquisition of Gec-co are final as at 30 June 2022.

Details of the acquisition are as follows:

	€'000
Cash	246
Trade and other receivables	557
Contract assets	192
Other assets	122
Trade and other payables	(372)
Loans and borrowings	(348)
Fair value of net assets acquired	397
Customer relationships	1,393
Order backlog	46
Goodwill	1,040
Intangibles acquired on acquisition	2,479
Deferred tax liabilities arising on acquisition	(386)
Acquisition-date fair value of total consideration	2,490

Representing:

	€'000
Shares issued	1,628
Deferred consideration	862
Total consideration	2,490

NOTE 28 BUSINESS COMBINATIONS (CONT.)

GeoThermal Engineering GmbH

Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of the shares in GeoThermal Engineering GmbH ('GeoT') in accordance with the Share Purchase Agreement, with effective date on 2 July 2021 (closing-date). Dr Horst Kreuter, CEO of Vulcan Energie Ressourcen GmbH, and a related party of Vulcan Energy Resources Limited, was the sole shareholder of GeoT.

The acquisition costs for 100% of the shares in GeoT were payable in cash. The agreed purchase price was €1.

GeoT is an independent planning and consulting company for the development of deep geothermal projects worldwide. In cooperation with partners and investors, GeoT develops national and international projects in regions that offer favourable conditions for a sustainable heat and/or power production from geothermal energy. Furthermore, GeoT designs optimally adapted exploration programs for each project by individual composing of the different exploration methods.

The acquired business contributed revenues (including other own work capitalised) of €1,469,495 for sale of services and loss after tax of €263,250 to the consolidated entity for the period from 2 July 2021 to 30 June 2022. As the acquisition occurred on 2 July 2022, the full year contribution is the same as above.

The values identified in relation to the acquisition of GeoT are final as at 30 June 2022.

Details of the acquisition are as follows:

	€
Cash	62,150
Trade and other receivables	151,854
Other assets	134,223
Trade and other payables	(156,342)
Loans and borrowings	(285,330)
Fair value of net liabilities acquired	(93,445)
Customer relationships	133,316
Goodwill	1,298
Intangibles acquired on acquisition	134,614
Deferred tax liabilities arising on acquisition	(41,168)
Acquisition-date fair value of total consideration	1

Representing:

	€
Cash paid or payable to vendor	1
Total consideration	1

NOTE 28 BUSINESS COMBINATIONS (CONT.)

Accounting policy

Business combinations

The acquisition method of accounting is used to account for business combinations regardless of whether equity instruments or other assets are acquired.

The consideration transferred is the sum of the acquisition-date fair values of the assets transferred, equity instruments issued or liabilities incurred by the acquirer to former owners of the acquiree and the amount of any non-controlling interest in the acquiree. For each business combination, the non-controlling interest in the acquiree is measured at either fair value or at the proportionate share of the acquiree's identifiable net assets. All acquisition costs are expensed as incurred to profit or loss.

On the acquisition of a business, the consolidated entity assesses the financial assets acquired and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic conditions, the consolidated entity's operating or accounting policies and other pertinent conditions in existence at the acquisition-date.

Where the business combination is achieved in stages, the consolidated entity remeasures its previously held equity interest in the acquiree at the acquisition-date fair value and the difference between the fair value and the previous carrying amount is recognised in profit or loss.

Contingent consideration to be transferred by the acquirer is recognised at the acquisition-date fair value. Subsequent changes in the fair value of the contingent consideration classified as an asset or liability is recognised in profit or loss. Contingent consideration classified as equity is not remeasured and its subsequent settlement is accounted for within equity.

The difference between the acquisition-date fair value of assets acquired, liabilities assumed and any non-controlling interest in the acquiree and the fair value of the consideration transferred and the fair value of any pre-existing investment in the acquiree is recognised as goodwill. If the consideration transferred and the pre-existing fair value is less than the fair value of the identifiable net assets acquired, being a bargain purchase to the acquirer, the difference is recognised as a gain directly in profit or loss by the acquirer on the acquisition-date, but only after a reassessment of the identification and measurement of the net assets acquired, the non-controlling interest in the acquiree, if any, the consideration transferred and the acquirer's previously held equity interest in the acquiree.

NOTE 29 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk and interest rate risk), credit risk, liquidity risk and price risk. The Group's overall risk management programme focuses on the unpredictability of the financial markets and seeks to minimise potential adverse effects on the financial performance of the Group. The Group uses different methods to measure and manage different types of risks to which it is exposed.

These include monitoring levels of exposure to interest rate and foreign exchange risk and assessments of market forecasts for interest rate and foreign exchange prices. Ageing analysis and monitoring of specific credit allowances are undertaken to manage credit risk. Liquidity risk is monitored through the development of future cash flow forecasts.

Risk management is carried out by Management and overseen by the Board of Directors with assistance from suitably qualified external advisors.

The main risks arising for the Group are foreign exchange risk, interest rate risk, credit risk and liquidity risk. The Board reviews and agrees policies for managing each of these risks and they are summarised below.

The carrying values of the Group's financial instruments are as follows:

	31 Dec 2022	30 June 2022
	€'000	€'000
Financial Assets		
Cash and cash equivalents	134,107	175,416
Trade and other receivables	6,316	4,030
	<u>140,423</u>	<u>179,446</u>
Financial Liabilities		
Trade and other payables	9,418	8,354
Lease liabilities	3,316	3,005
	<u>12,734</u>	<u>11,359</u>

(a) Market risk

(i.) Foreign exchange risk

The Group's exposure to foreign currency risk at the end of the reporting period, was as follows:

	31 Dec 22	30 Jun 22
	€'000	€'000
Trade payables	(1,312)	(1,430)
Cash and cash equivalent	35,358	87,421
	<u>34,046</u>	<u>85,991</u>

NOTE 29 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONT.)

The aggregate net foreign exchange gains/(losses) recognised in the P&L were:

	31 December 2022 €'000	30 June 2022 €'000
Net foreign exchange gains recognised in the P&L:	(105)	285

Sensitivity

As shown in the table above, the group is primarily exposed to changes in EUR/AUD exchange rates. The sensitivity of profit or loss to changes in the exchange rates is:

	Impact on post-tax profit	
	6 months	12 months
	31 December 2022 €'000	30 June 2022 €'000
EUR/AUD exchange rate - increase 5% *	(1,773)	(4,390)
EUR/AUD exchange rate - decrease 5%*	1,773	4,390
EUR/USD exchange rate - increase 5%	(64)	(53)
EUR/USD exchange rate - decrease 5%	64	53

*Holding all other variables constant

(ii.) Interest rate risk

The Group is exposed to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in the market interest rates on interest bearing financial instruments. The Group's exposure to this risk relates primarily to the Group's cash and any cash on deposit. The Group does not use derivatives to mitigate these exposures. The Group manages its exposure to interest rate risk by holding certain amounts of cash in fixed and floating interest rate facilities. At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was:

	31 December 2022		30 June 2022	
	Weighted average interest rate	Balance €'000	Weighted average interest rate	Balance €'000
Cash and cash equivalents	1.53%	101,687	0.25%	103,558

Sensitivity

Within the analysis, consideration is given to potential renewals of existing positions and the mix of fixed and variable interest rates. The following sensitivity analysis is based on the interest rate risk exposures in existence at the reporting date. The 1% increase and 1% decrease in rates is based on reasonably expected possible changes over a financial year.

At 31 December 2022, if interest rates had moved, as illustrated in the table below, with all other variables held constant, losses and equity would have been affected as follows:

NOTE 29 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONT.)

	Profit higher/(lower) 31 December 2022 €	Profit higher/(lower) 30 June 2022 €
+ 1.0% (100 basis points)	1,016,867	1,035,576
- 1.0% (100 basis points)	(1,016,867)	(1,035,576)

(b) Credit risk

Credit risk arises from the financial assets of the Group, which comprise cash and cash equivalents, trade and other receivables and other financial assets. The Group's exposure to credit risk arises from potential default of the counterparty, with maximum exposure equal to the carrying amount of the financial assets.

The Group's policy is to trade only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms will be subject to credit verification procedures.

In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant. There are no significant concentrations of credit risk within the Group except for cash and cash equivalents.

(c) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation.

The Group manages liquidity risk by maintaining adequate cash reserves from funds raised in the market and by continuously monitoring forecast and actual cash flows. The Group does not have any external borrowings.

The following are the contractual maturities of financial liabilities:

	1 year or less €'000	1-5 years €'000	> 5 years €'000	Total €'000
31 Dec 22				
Trade and other payables	9,418	-	-	9,418
Lease Liabilities	646	1,801	869	3,316
30 Jun 22				
Trade and other payables	8,354	-	-	8,354
Lease Liabilities	439	838	1,728	3,005

NOTE 29 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONT.)**(d) Price risk**

The Group is exposed to the commodity price risk, as its energy sales are predominantly subject to prevailing market prices. The contract with Pfalzwerke guarantees a minimum price of €0.25 per kWh. During the six months ending 31 December 2022 Vulcan sold 10,409 MWh at an average price of €0.32 per kWh.

At 50% of the upward movement in the price for Mwh, the Group's loss would decrease by €1.9m. At 100% upward price movement the loss would decrease by €3.7m.

(e) Capital risk management

The Group's objectives when managing capital are to:

- Safeguard their ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders; and
- Maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the number of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Given the stage of the Company's development there are no formal targets set for return on capital. The Company is not subject to externally imposed capital requirements. The net equity of the Company is equivalent to capital. Net capital is obtained through capital raisings on the Australian Securities Exchange ("ASX").

NOTE 30 CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

	Lease liabilities €'000	Total €'000
Balance at 1 July 2021	353	353
Net cash used in financing activities	(185)	(185)
Additions to leases	3,190	3,190
Other changes	(353)	(353)
Balance at 1 July 2022	3,005	3,005
Net cash used in financing activities	(462)	(462)
Additions to leases	776	776
Other changes	(3)	(3)
Balance at 31 December 2022	3,316	3,316

NOTE 31 NON-CASH INVESTING AND FINANCING ACTIVITIES

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Additions to the right of use assets	776	3,190
Performance shares issued for consideration of acquisition	-	363
Shares issued for consideration of acquisition	-	1,685
	776	5,238

NOTE 32 SHARE-BASED PAYMENTS

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Recognised share-based payment transactions		
Performance rights issued to Directors, staff and consultants (i)	153	520
Performance rights issued to Directors & staff in prior periods (ii)	558	2,769
Performance shares issued to Vendors of Acquisition	-	218
Performance shares issues as consideration for acquisition of subsidiary GGH	-	363
Shares issued for consideration of services (Note 23)	225	478
Warrants	-	130
	<u>936</u>	<u>4,478</u>
Represented by		
Shared-based payment expense	711	3,637
Investor relations expense	225	478
Capitalised exploration assets	-	363
	<u>936</u>	<u>4,478</u>

(i) Details of new performance rights issued during the period:

Under the Company's Incentive Award plan, the Company issued the following incentives:

- an annual deferred incentive (ADI), designed to reward creation of exceptional short-term shareholder value as evidenced by the performance hurdles. Issued in three Tranches as Class AA
- a long-term incentive (LTI), designed to reward creation of exceptional long-term shareholder value as evidenced by performance hurdles. Issued in seven tranches as Class AB

The incentives were issued on the following dates:

- on the 19th of September 52,000 ADIs and 102,000 LTIs were issued to the Executives.
- on the 13th of December 12,700 ADIs and 56,200 LTIs were issued to the Executives.
- On the 29th of November 26,000 ADI's and 116,000 LTI's were issued to the Managing Director.

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Details of the ADIs for Executives:

Item	Executive Rights - ADI					
	Tranche 1		Tranche 2		Tranche 3	
Grant date	19/09/2022	13/12/2022	19/09/2022	13/12/2022	19/09/2022	13/12/2022
Fair value of each right (EUR)	5.24	4.30	5.24	4.30	5.24	4.30
Commencement of performance period	1/07/2022	1/11/2022 & 14/11/2022	1/07/2022	1/11/2022 & 14/11/2022	1/07/2022	1/11/2022 & 14/11/2022
Performance measurement date	30/06/2022	30/06/2022	30/06/2022	30/06/2022	30/06/2022	30/06/2022
Vesting date	30/06/2024	30/06/2024	30/06/2024	30/06/2024	30/06/2024	30/06/2024
Expiry date	30/06/2026	30/06/2026	30/06/2026	30/06/2026	30/06/2026	30/06/2026
Volatility	n/a	n/a	n/a	n/a	n/a	n/a
Risk-free rate	n/a	n/a	n/a	n/a	n/a	n/a
Dividend yield	nil	nil	nil	nil	nil	nil
Number of Rights	15,600	3,810	15,600	3,810	20,800	5,080
Price at grant (EUR)	5.24	4.30	5.24	4.30	5.24	4.30
Valuation per Tranche (EUR)	81,744	16,383	81,744	16,383	108,992	21,844

Share based payment expense (EUR)	10,116	808	10,116	808	18,882	1,509

Item	Managing Director's Rights - ADI		
	Tranche 1	Tranche 2	Tranche 3
Grant date	29/11/2022	29/11/2022	29/11/2022
Fair value of each right (EUR)	4.52	4.52	4.52
Commencement of performance period	1/07/2022	1/07/2022	1/07/2022
Performance measurement date	30/06/2023	30/06/2023	30/06/2023
Vesting date	30/06/2024	30/06/2024	30/06/2024
Expiry date	30/06/2026	30/06/2026	30/06/2026
Volatility	n/a	n/a	n/a
Risk-free rate	n/a	n/a	n/a
Dividend yield	nil	nil	nil
Number of Rights	7,800	7,800	10,400

Price at grant (EUR)	4.52	4.52	4.52
Valuation per Tranche (EUR)	35,228	35,228	46,971
Share payment based expense (EUR)	4,527	4,527	8,451

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Details of ADI performance rights vesting conditions:

Tranche 1:

The Tranche 1 will vest subject to the obtaining sufficient funding in order to allow for completion of the first plant that will be able to produce lithium on a commercial scale and/or the first new commercial geothermal heating plant, in accordance with Vulcan's business plan (First Plant) by 30 June 2023.

Tranche 2:

The Tranche 2 will vest subject to the achievement of various individual and business KPIs. The STI targets reflect a balance of individual and organisational goals impacting overall STI. Individual goals in the assessment of the STI include items such as sustainability, cost performance, funding, approval of drilling permits, drilling activity, compliance and governance, growth and safety. Individual executive goals are all clearly defined and specifically measurable.

Tranche 3

The tranche 3 will vest subject to the achievement of the shared objectives as follows:

People:

- a) >80% retention rate for agreed critical roles at all levels of the organisation for FY 23 onwards; and
- b) increased employee satisfaction rate based on previous annual internal employee satisfaction survey.

Environment:

- a) obtain an ESG rating from a recognised third party ESG provider that is above 50%;
- b) obtain a carbon neutral emission certification from a recognised third-party issuer where the Group's carbon emissions footprint is measured and offset by supporting credible carbon offset projects and verified across all business units by 30 June 2023; and
- c) reporting of climate related impacts, risks and opportunities management by the Group according to the Taskforce for Climate-Related Financial Disclosures (TCFD) guidelines and/or report according to the Taskforce for Nature-Related Financial Disclosures (TNFD).

Social:

- a) all exploration/production licenses to be in good standing as at 30 June 2023; and
- b) release an announcement on the ASX that it has commenced drilling in the Upper Rhine Valley.

The above ADI performance rights are subject to continuous service until the vesting date.

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Details of the LTIs for Executives:

Item		Grant date	Fair value of each right (EUR)	Expiry date	Volatility	Risk-free rate	Number of Rights	Price at grant (EUR)	Valuation per Tranche (EUR)	Share based payment expense (EUR)
Executive Rights	Tranche 1	19/09/2022	5.24	30/06/2027	n/a	n/a	30,600	5.24	160,344	9,921
		13/12/2022	4.30	30/06/2027	n/a	n/a	16,860	4.30	72,498	1,659
	Tranche 2	19/09/2022	5.24	30/06/2027	n/a	n/a	15,300	5.24	80,172	4,961
		13/12/2022	4.30	30/06/2027	n/a	n/a	8,430	4.30	36,249	829
	Tranche 3	19/09/2022	5.24	30/06/2027	n/a	n/a	10,200	5.24	53,448	3,307
		13/12/2022	4.30	30/06/2027	n/a	n/a	5,620	4.30	24,166	553
	Tranche 4	19/09/2022	5.24	30/06/2027	n/a	n/a	7,650	5.24	40,086	2,480
		13/12/2022	4.30	30/06/2027	n/a	n/a	4,215	4.30	18,125	415
	Tranche 5	19/09/2022	5.24	30/06/2027	n/a	n/a	7,650	5.24	40,086	2,480
		13/12/2022	4.30	30/06/2027	n/a	n/a	4,215	4.30	18,125	415
	ATSR Rights	19/09/2022	4.18	30/06/2027	75%	3.405%	10,200	5.24	42,636	5,267
		13/12/2022	3.24	30/06/2027	75%	3.115%	5,620	4.30	18,209	837
	RTSR Rights	19/09/2022	4.57	30/06/2027	75%	3.405%	20,400	5.24	93,228	11,518
		13/12/2022	3.50	30/06/2027	75%	3.115%	11,240	4.30	39,340	1,673

Item		Grant date	Fair value of each right (EUR)	Expiry date	Volatility	Risk-free rate	Number of Rights	Price at grant (EUR)	Valuation per Tranche (EUR)	Share based payment expense (EUR)
MD Rights	Tranche 1	29/11/2022	4.52	30/06/2027	n/a	n/a	34,800	4.52	157,296	10,100
	Tranche 2	29/11/2022	4.52	30/06/2027	n/a	n/a	17,400	4.52	78,648	5,050
	Tranche 3	29/11/2022	4.52	30/06/2027	n/a	n/a	11,600	4.52	52,432	3,367
	Tranche 4	29/11/2022	4.52	30/06/2027	n/a	n/a	8,700	4.52	39,324	2,525
	Tranche 5	29/11/2022	4.52	30/06/2027	n/a	n/a	8,700	4.52	39,324	2,525
	ATSR Rights	29/11/2022	3.46	30/06/2027	75%	3.235%	11,600	4.52	40,136	5,164
	RTSR Rights	29/11/2022	3.69	30/06/2027	75%	3.235%	23,200	4.52	85,608	10,988

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Details of LTI performance rights vesting conditions:

Tranche 1:

The Tranche 1 Rights will vest subject to the achievement of the successful ramp up to nameplate capacity for Phase 1 energy and lithium chemicals production, and achievement of corresponding revenue.

Tranche 2:

The Tranche 2 Rights will vest subject to the achievement of obtaining a positive definitive feasibility study for Phase 2 energy and lithium chemicals production, and achievement of corresponding revenue.

Tranche 3:

The Tranche 3 Rights will vest subject to the achievement of obtaining project financing for completion of Phase 2 capital expenditure.

Tranche 4:

The Tranche 4 Rights will vest subject to the achievement of carbon neutral emission certification across all operations through each year in the four-year period commencing 30 June 2022.

Tranche 5:

The Tranche 5 Rights will vest subject to the achievement of lowest quartile absolute greenhouse gas (GHG) emissions.

ATSR Rights:

The number of RTSR Rights that vest is based on the TSR of Vulcan over the performance period, relative to the returns of the Peer Group. The RTSR Rights will vest according to the following schedule:

Company's TSR performance	Percentage of ATSR Rights eligible to vest
Company's TSR < 7.5%	Nil
7.5% < Company's TSR < 10%	50% to 75% on a pro-rata basis
10% < Company's TSR < 12.5%	75% to 100% on a pro-rata basis
Company's TSR > 12.5%	100%

RTSR Rights:

The number of RTSR Rights that vest is based on the TSR of Vulcan over the performance period, relative to the returns of the Peer Group. The RTSR Rights will vest according to the following schedule

Company's TSR performance relative to the Peer Group	Percentage of RTSR Rights eligible to vest
50th percentile	50%
Between 50th percentile and 75th percentile	Pro-rata
75th percentile	100%

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

On the 29th of November the Company issued Performance rights to Non Executive Directors (NED Service Rights). Dr Günter Hilken and Mark Skelton each received 14,237 performance rights valued at EUR 67,746. Issued in three tranches as class AC

Performance rights vest as follows:

- 1/3 vesting 12 months from the date of 2022 AGM;
- 1/3 vesting 24 months from the date of 2022 AGM; and
- 1/3 vesting 36 months from the date of 2022 AGM.

Type	Grant date	Number of Rights	Vesting date	Total value of Rights (EUR)	Share based payment expense (EUR)
Tranche 1	29/11/2022	9,491	29/11/2023	45,164	4,060
Tranche 2	29/11/2022	9,491	29/11/2024	45,164	2,027
Tranche 3	29/11/2022	9,491	29/11/2025	45,164	1,352

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

(ii) Details of performance rights issued in prior years:

Type	Fair value of each right (EUR)	Expected volatility	Grant date	Price at grant date (EUR)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of Rights	Total value of Rights (EUR)	Share based payment expense (EUR)
Class J	0.55	70%	10/09/2020	0.55	16/09/2023	1.84	0.26%	2,500,000	1,368,598	241,631
Class P	0.55 & 4.67 & 7.54	N/A	15/09/2020 & 29/06/2021 & 16/12/2021	0.55 & 4.67 & 7.54	1/12/2023	N/A	N/A	250,000 & 60,000 & 58,000	855,020	(441,746)
Class R	1.47	N/A	25/11/2020	1.47	27/11/2022	N/A	N/A	100,000	147,060	32,264
Class S	4.95	N/A	24/06/2021	4.95	30/06/2025	N/A	N/A	38,688	191,561	27,944
Class T	4.82 & 7.54	N/A	29/06/2021 & 16/12/2021	4.82 & 7.54	1/12/2024	N/A	N/A	250,000 & 18,000	1,341,080	147,585
Class U	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	250,000	1,205,360	175,530
Class V	4.82 & 7.54	N/A	29/06/2021 & 16/12/2021	4.82 & 7.54	1/12/2024	N/A	N/A	100,000 & 18,000	617,864	69,513
Class W	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	100,000	482,144	52,488
Class Y	7.54	N/A	16/12/2021	7.54	1/12/2024	N/A	N/A	60,000	452,400	204,326
Class Z	7.54	N/A	16/12/2021	7.54	1/12/2024	N/A	N/A	50,000	377,000	48,417

Details of Performance Rights vesting conditions:

Class J

- the Company announcing, within 36 months from the date of issue, a positive (JORC-Compliant) Definitive Feasibility Study in relation to the Project confirming it is commercially viable; and
- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 225% of the VWAP for Shares for the last 5 trading days up to but not including the date of the Meeting (the Reference Price).

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Class P

- the Company announcing before 31 December 2022 a positive Definitive Feasibility Study in relation to the Project confirming it is commercially viable. Performance rights lapsed as the vesting condition had not been satisfied within the intended timeframe.

Class R

- Vesting on issue and converting to shares on a one for one basis on the date that is 24 months from the date of issue.

Class S

- one third vesting 12 months from the date of the 24 June 2021 General Meeting (EGM), one third vesting 24 months from EGM, one third vesting 36 months from EGM.

Class T

- the Company being issued a building permit for the first geothermal power plant or, in the case of a pure heating project with no electricity production, the transfer station, on or before the Expiry Date of 1st December 2024;

Class U

- the Company being issued a building permit for the first Direct Lithium Extraction system, on or before the Expiry Date of 1st December 2024.

Class V

- the Company being granted a permit according to BImSchG for the first lithium refinery, on or before the Expiry Date of 1st December 2024;

Class W

- the Company announcing commissioning of the first commercial lithium extraction plant, on or before the Expiry Date of 1st December 2024;

Class Y:

The Company announcing successful listing of Vulcan Energy on the regulated market of the Frankfurt Stock Exchange on or before the expiry date of 1 December 2024.

Class Z:

Performance Rights will vest upon the Company obtaining project finance for the first commercial plant, on or before the Expiry Date of 1 December 2024.

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Set out below are summaries of performance rights granted and exercised:

	As at 1 July 2022	Granted	Exercised	Cancelled	Lapsed	As at 31 December 2022	Exercisable performance rights
Class G	250,000	-	-	-	-	250,000	250,000
Class H	553,636	-	(80,909)	-	-	472,727	472,727
Class I	1,000,000	-	(89,091)	-	-	910,909	910,909
Class J	2,500,000	-	-	-	-	2,500,000	-
Class M	1,500,000	-	-	-	-	1,500,000	1,500,000
Class N	1,500,000	-	-	-	-	1,500,000	1,500,000
Class P	368,000	-	-	(8,000)	(360,000)	-	-
Class R	100,000	-	(100,000)	-	-	-	-
Class S	38,688	-	(12,897)	-	-	25,791	-
Class T	268,000	-	-	(8,000)	-	260,000	-
Class U	250,000	-	-	-	-	250,000	-
Class V	118,000	-	-	(8,000)	-	110,000	-
Class W	100,000	-	-	-	-	100,000	-
Class Y	60,000	-	-	-	-	60,000	-
Class Z	50,000	-	-	-	-	50,000	-
Class AA (ADI)	-	90,700	-	-	-	90,700	-
Class AB (LTI)	-	274,200	-	-	-	274,200	-
Class AC (NED)	-	28,474	-	-	-	28,474	-
	8,656,324	393,374	(282,897)	(24,000)	(360,000)	8,382,801	4,633,636

No performance rights expired during the period. Vested conditions of performance rights exercisable at 31 December 2022:

Class G

- Will vest upon the holder completing six months continuous employment with the Company, with an expiry date of 1 December 2023.;

Class H

- the Company announcing, on or before 18 May 2022, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable.

Class I:

-Will vest upon the Company announcing that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum EUR 6,000,000 investment in relation to the Vulcan Lithium Project within three years of issue of the Performance Rights, with an expiry date of 1 December 2023.

Class M:

- the Company announcing, on or before 21 May 2021, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable.

Class N:

-the Company announcing, on or before 21 May 2022, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of EUR 6,000,000 investment in relation to the Project.

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Set out below are summaries of performance rights granted and exercised.

	As at 1 July 2021	Granted	Exercised	Cancelled, Lapsed or Expired	As at 30 June 2022	Exercisable performance rights
Class F	1,250,000	-	(1,250,000)	-	-	-
Class G	250,000	-	-	-	250,000	250,000
Class H	990,000	-	(436,364)	-	553,636	553,636
Class I	1,000,000	-	-	-	1,000,000	1,000,000
Class J	2,500,000	-	-	-	2,500,000	-
Class L	1,000,000	-	(1,000,000)	-	-	-
Class M	1,500,000	-	-	-	1,500,000	-
Class N	1,500,000	-	-	-	1,500,000	-
Class P	310,000	58,000	-	-	368,000	-
Class Q	100,000	-	(100,000)	-	-	-
Class R	100,000	-	-	-	100,000	-
Class S	38,688	-	-	-	38,688	12,897
Class T	250,000	18,000	-	-	268,000	-
Class U	250,000	-	-	-	250,000	-
Class V	100,000	18,000	-	-	118,000	-
Class W	100,000	-	-	-	100,000	-
Class Y	-	60,000	-	-	60,000	-
Class Z	-	50,000	-	-	50,000	-
	11,238,688	204,000	(2,786,364)	-	8,656,324	1,816,533

Set out below are summaries of performance shares granted and exercised.

	As at 1 July 2022	Issued	Exercised	Cancelled, Lapsed or Expired	As at 31 December 2022	Exercisable performance shares
Class D	91,174	-	-	-	91,174	-
	91,174	-	-	-	91,174	-

	As at 1 July 2021	Issued	Exercised	Cancelled, Lapsed or Expired	As at 30 June 2022	Exercisable performance shares
Class C	4,400,000	-	(4,400,000)	-	-	-
Class D	-	91,174	-	-	91,174	-
	4,400,000	91,174	(4,400,000)	-	91,174	-

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Accounting Policy

Share-based payments

Equity-settled and cash-settled share-based compensation benefits are provided to Key Management Personnel and employees.

Equity-settled transactions are awards of shares, or options over shares, which are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using an appropriate valuation model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the consolidated entity receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions are recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest and the expired portion of the vesting period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying an appropriate valuation model, taking into consideration the terms and conditions on which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- a. During the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- b. From the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore, any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the consolidated entity or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the consolidated entity or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

NOTE 33 RELATED PARTY DISCLOSURE

Parent entity

Vulcan Energy Resources Limited is the parent entity.

Subsidiaries

Interests in subsidiaries are set out in note 27.

Associates

Interests in associates are set out in note 25.

(a) Key Management Personnel Compensation

The aggregate compensation made to directors and other members of key management personnel of the consolidated entity is set out below.

	6 months	12 months
	31-Dec-22	30-Jun-22
	€	€
Short-term benefits	770,032	1,240,462
Post-employment benefits	38,325	45,206
Share-based payments	299,871	1,655,046
	1,108,228	2,940,714

(b) Transactions with associates

Loans to or from associates

There were no loans to or from associates at 31 December 2022 (30 June 2022: nil).

(c) Transactions with related parties

During the six month period ending 31 December 2022 payments for consultancy fees of €28,089 (30 June 2022: €33,968) were made to JRB Consulting Ltd., a related party of Ms Josephine Bush, in respect of expert advice on ESG reporting. There were no amounts outstanding as at 31 December 2022 to JRB Consulting Ltd (30 June 2022: €8,709) . There was €4,954 outstanding as at 31 December 2022 (30 June 2022: €nil) to Sustineri Strategy Ltd, a related party to Ms Josephine Bush in relation to ESG consulting provided.

On the 8th of September 2022 Vulcan entered into a contract with Dr Horst Kreuter to rent a flat at the rate of €1,810 per month and €418 operating costs monthly. The contract is a short-term lease. No amount was paid from inception of the contract and until 31 October 2022. The amount of €2,715 was outstanding as at 31 October 2022 and nil was outstanding as at 31 December 2022.

During the previous financial year, the Company issued 5,698 shares and 45,587 performance shares to Dr Horst Kreuter for the security consideration for the acquisition of Global Geothermal Holding UG (GGH, a company incorporated under the laws of Germany) on 6 July 2021, following shareholder approval at an EGM held in June 2021. Dr Kreuter was a shareholder of Global Geothermal Holding UG, which held geothermal and lithium exploration licenses applied for by GGH prior to Dr. Kreuter joining Vulcan, that were sold to Vulcan as part of the transaction.

NOTE 33 RELATED PARTY DISCLOSURE (CONT.)

(c) Transactions with related parties (cont.)

The Company also completed the acquisition of GeoThermal Engineering GmbH (GeoT), a geothermal engineering consultancy business, on 2 July 2021 for €1. Dr Kreuter is the sole shareholder of GeoT. Dr. Kreuter will also receive 50% of any payments received from certain debtors to GeoT, if these payments are made to GeoT within

18 months of completion of the acquisition. GeoT owes a debt of approximately €140,000 (plus a nominal amount of interest) to Dr. Kreuter, 50% of which will be paid within three months of completion of the acquisition, with the remaining 50% to be paid by no later than 31 December 2021.

During the previous financial year payments for consultancy fees of €52,834 were made to Alto Group Inc., a related party of Ms Annie Liu. There was no outstanding balance as at 30 June 2022.

Loans to/from related parties

There were no loans to or from related parties at the 31 December 2022 (30 June 2022: nil).

Other than the above, there were no other transactions with related parties during the period ended 31 December 2022.

Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

NOTE 34 COMMITMENTS

Below are the commitments in relation to its exploration and evaluation assets:

	31 Dec 2022 €'000	30 June 2022 €'000
Within one year	5,482	3,422
One to five years	4,708	6,293
	<u>10,190</u>	<u>9,715</u>

Below are the commitments in relation to capital expenditure:

	31 Dec 2022 €'000	30 June 2022 €'000
Within one year	30,383	18,362
One to five years	1,917	3,600
	<u>32,300</u>	<u>21,962</u>

NOTE 35 CONTINGENCIES

The Group has given bank guarantees as at 31 December 2022 of €1,245,000 (30 June 2022: €120,000)

The Group has no contingent assets and liabilities as at 31 December 2022 (30 June 2022 : nil).

NOTE 36 AUDITOR'S REMUNERATION

	31 Dec 2022 €'000	30 June 2022 €'000
Amounts received or due and receivable by RSM Australia Partners for:		
Audit or review of the annual financial report	73	109
Amounts received or due and receivable by RSM GmbH for:		
Audit or review of the annual financial report	95	88
Other services - RSM Australia Pty Ltd for:		
- Comfort letter in relation to listing prospectus	-	79
	<u>168</u>	<u>276</u>

NOTE 37 ACCUMULATED LOSSES

	6 months 31 Dec 22 €'000	12 months 30 Jun 22 €'000
Balance at beginning of the period/year	(28,422)	(9,571)
Loss after income tax for the period/year	(13,450)	(18,851)
Balance at end of the period/year	<u>(41,872)</u>	<u>(28,422)</u>

NOTE 38 PARENT ENTITY

	31 Dec 22	30 Jun 22
	€'000	€'000
Statement of Financial Position		
ASSETS		
Current Assets	64,912	117,542
Non-Current Assets	169,934	133,308
Total Assets	<u>234,846</u>	<u>250,850</u>
LIABILITIES		
Current Liabilities	1,618	3,527
Non Current Liabilities	68	-
Total Liabilities	<u>1,686</u>	<u>3,527</u>
EQUITY		
Issued Capital	259,158	258,933
Reserves	12,984	19,689
Accumulated losses	(38,981)	(31,299)
Total Equity	<u>233,161</u>	<u>247,323</u>
Statement of Profit or Loss and other comprehensive income		
Loss for the period/year	<u>(7,682)</u>	<u>(21,479)</u>
Total Comprehensive Loss	<u>(7,682)</u>	<u>(21,479)</u>

NOTE 38 PARENT ENTITY (CONT.)*Contingent liabilities*

Other than disclosed at Note 35, the parent entity has no other contingent assets or contingent liabilities as at 30 June 2022 and 31 December 2022.

Capital commitments - Property, plant and equipment

The parent entity had no capital commitments for property, plant and equipment as at 30 June 2022 and 31 December 2022.

Exploration commitments

The parent entity has no exploration commitments as at 30 June 2022 and 31 December 2022.

Significant accounting policies

The accounting policies of the parent entity are consistent with those of the consolidated entity, as disclosed in the financial statements, except for the following:

- (i.) Investments in subsidiaries are accounted for at cost, less any impairment, in the parent entity.

NOTE 39 DIVIDENDS

No dividend has been declared or paid during the period ended 31 December 2022 (30 June 2022: nil), and the Directors do not recommend the payment of a dividend in respect of the period ended 31 December 2022

Accounting Policy

Dividends

Dividends are recognised when declared during the financial period and no longer at the discretion of the Company.

NOTE 40 EVENTS AFTER THE REPORTING DATE

- On January 4, 2023, Vulcan signed a share purchase agreement to acquire Comeback Personaldienstleistungen GmbH, a company which provides skilled workforce in the drilling industry. The transaction was closed on 31 January 2023. Total consideration for the acquisition was €278,000 comprised of a €150,000 cash component as well as a qualified purchase price component of €128,000. The identifiable net assets and intangibles of the business totalled €296,000. The final purchase price allocation will be determined over the twelve-month period from completion.
- Sustainalytics, a Morningstar Company that is a leading independent ESG and corporate governance research, ratings and analytics firm, delivered Vulcan's first publicly available ESG Risk report in January, giving Vulcan an overall low ESG Risk Score of 16.8.
- Vulcan recently signed a Binding Term Sheet with Stellantis for the first phase of a multiphase project aimed at decarbonising the energy mix of the Rüsselsheim auto manufacturing site in the Upper Rhine Valley, Germany, through the development of new geothermal projects.
- On 13 February 2023, the Company announced the Zero Carbon Lithium Project's Phase One definitive feasibility study results. Key highlights were:
 - Targeting 24Ktpa Lithium Hydroxide Monohydrate (LHM) p.a. production from EU, for EU.
 - Targeting >300GWh/a renewable power, >250GWh/a renewable heat production p.a.
 - >250% increase in estimated NPV: €3.9Bn pre-tax, €2.6Bn post-tax.
 - 34% estimated IRR pre-tax, 26% IRR post-tax.
 - Targeted >€700Mpa estimated revenues. Targeted EBITDA margin of 84%.
 - €1,496M estimated CAPEX, increase broadly in line with larger project and inflation. Low estimated OPEX of €4,359/t LHM.
 - Targeted 3.5-year payback (Integrated Project). Target start of production end-2025. Net zero per tonne estimated LHM carbon footprint.
 - Zero Scope 1 fossil fuels. Net water consumption very low. Increase in Resources and Reserves relative to Integrated Phase One PFS.

Apart from the above, no other matter or circumstance has arisen since 31 December 2022 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

Directors' Declaration

In the Directors' opinion:

- a) The financial statements and accompanying notes are in accordance with the Corporations Act 2001, including:
 - i) complying with Australian Accounting Standards, the Corporations Regulations 2001 and other mandatory professional reporting requirements; and
 - ii) giving a true and fair view of the consolidated entity's financial position as at 31 December 2022 and of its performance for the six months ended on that date.
- b) The financial statements and notes comply with International Financial Reporting Standards.
- c) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The Directors have been given the declarations required by section 295A of the Corporations Act 2001.

This declaration is made in accordance with a resolution of the Board of Directors made pursuant to section 295(5)(a) of the Corporations Act 2001 and is signed for and on behalf of the Directors by:

Gavin Rezos
Chairman

22 March 2023

17.3.6 Independent Auditor's Report

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF VULCAN ENERGY RESOURCES LIMITED

Opinion

We have audited the financial report of Vulcan Energy Resources Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 31 December 2022, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the period 1 July 2022 to 31 December 2022, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- (i) Giving a true and fair view of the Group's financial position as at 31 December 2022 and of its financial performance for the period 1 July 2022 to 31 December 2022; and
- (ii) Complying with Australian Accounting Standards and the *Corporations Regulations 2001*.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Group in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the *Corporations Act 2001*, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit Matter	How our audit addressed this matter
Exploration and Evaluation Expenditure- Refer to Note 14 in the financial statements	
The Group has capitalised exploration and evaluation expenditure with a carrying value of €30,135,000 as at 31 December 2022. We considered this to be a key audit matter due to the significant management judgments	Our audit procedures included: - Assessing the Group's accounting policy for Compliance with Australian Accounting Standards; - Obtaining a schedule of the areas of interest held by the Group and testing

Key Audit Matter	How our audit addressed this matter
involved in assessing the carrying value of the asset including: • Determination of whether the exploration and evaluation expenditure can be associated with finding specific mineral resources and the basis on which that expenditure is allocated to an area of interest; • Assessing whether exploration activities have reached a stage at which the existence of economically recoverable reserves may be determined; and • Assessing whether any indicators of impairment are present and if so, judgement applied to determine and quantify any impairment loss.	on a sample basis that the right to tenure of each relevant area of interest remained current at reporting date; • Testing a sample of additions to supporting documentation and ensuring the amounts capitalised for the period 1 July 2022 to 31 December 2022 are in compliance with the Group's accounting policy and relate to the area of interest; • Enquiring with management and reading budgets and other documentation as evidence that active and significant operations in, or relation to, the area of interest will be continued in the future; • Assessing and evaluating management's determination that exploration activities have not yet progressed to the stage where the existence or otherwise of economically recoverable reserves may be determined; • Assessing and evaluating management's assessment of whether indicators of impairment existed; and • Assessing the appropriateness of disclosures in the financial statements.
Share-based payments - Refer to Note 32 in the financial statements	
During the period, the Group issued performance rights and shares to key management personnel, employees, consultants and vendors. Management has accounted for these instruments in accordance with AASB 2 <i>Share-Based Payment</i>. We have considered this to be a key audit matter because: • The complexity of the accounting associated with recording these instruments and management estimation in determining the fair value of instruments granted; • Management judgement is required to determine the probability of vesting conditions of these instruments and	Our audit procedures included: • Assessing the Group's accounting policy for compliance with Australian Accounting Standards; • Obtaining an understanding of the terms and conditions of these instruments granted; • Assessing the completeness of the instruments granted/expired/lapsed at reporting date; • Assessing the appropriateness of management's valuation methodology used to determine the fair value of these instruments granted;

Key Audit Matter	How our audit addressed this matter
the inputs used in the valuation model to value these instruments; and The recognition of the share-based payment expense is complex due to the variety of vesting conditions attached to these instruments.	- Testing the key inputs used in the valuation model for each instrument granted; - Critically assessing management's determination of the vesting probability of each instrument; - Recalculating the amount of share-based payment expense recognised for the period 1 July 2022 to 31 December 2022 and reserve balance for accuracy and in accordance with the vesting conditions; and - Assessing the appropriateness of disclosures in the financial statements.

Other Information

The directors are responsible for the other information. The other information comprises the information included in the Group's annual report for the period 1 July 2022 to 31 December 2022 but does not include the financial report and the auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: https://www.auasb.gov.au/admin/file/content102/c3/ar1_2020.pdf This description forms part of our auditor's report.

Report on the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in the directors' report for the period 1 July 2022 to 31 December 2022.

In our opinion, the Remuneration Report of Vulcan Energy Resources Limited, for the period 1 July 2022 to 31 December 2022, complies with section 300A of the *Corporations Act 2001*.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the *Corporations Act 2001*. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

RSM AUSTRALIA PARTNERS

Perth, WA
Dated: 22 March 2023

AIK KONG TING
Partner

17.4 Consolidated Annual Financial Statements 2022

17.4.1 Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the Financial Year Ended 30 June 2022

	Note	30-Jun- 2022 €'000	30-Jun-2021 €'000
Revenue from continuing operations	4	3,799	-
Other income	5	545	395
Gain on deconsolidation	23	1,975	-
Share of loss from equity accounted investments	23	(495)	-
Other own work capitalised	5	3,696	-
Raw materials and purchased services		(2,512)	-
Administrative expenses	6	(3,823)	(556)
Compliance and regulatory expenses		(729)	(345)
Consulting and legal fees	6	(4,099)	(1,204)
Depreciation and amortisation	6	(2,629)	(82)
Employee benefit expenses	6	(7,793)	(391)
Investor relations expenses		(615)	(257)
Impairment expenses		(36)	(143)
Loss on disposal of financial assets		(745)	-
Occupancy costs		(498)	(35)
Share-based payments expense	30	(3,637)	(4,080)
Other expenses		(1,175)	(76)
Foreign currency gain		285	48
Loss before income tax expense		(18,486)	(6,726)
Income tax expense	7	(365)	-
Loss after income tax for the year		(18,851)	(6,726)
Other comprehensive income			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Foreign currency translations		6,990	849
Total comprehensive loss for the year (net of tax)		(11,861)	(5,877)
Total comprehensive loss for the year attributable to the members of Vulcan Energy Resources Limited		(11,861)	(5,877)
Loss per share for the year attributable to the members Vulcan Energy Resources Limited:			
Basic loss per share (€)	8	(0.15)	(0.08)
Diluted loss per share (€)	8	(0.15)	(0.08)

The Consolidated Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the notes to the financial statements.

17.4.2 Consolidated Statement of Financial Position

As at 30 June 2022

	Note	30-Jun-22 €'000	30-Jun-21 €'000
Assets			
Current assets			
Cash and cash equivalents	9	175,416	72,494
Trade and other receivables	10	4,030	757
Contract assets	11	79	-
Inventories	12	138	-
Total current assets		179,663	73,251
Non-current assets			
Investments accounted for using equity method	23	1,214	-
Exploration and evaluation expenditure	13	20,440	8,722
Plant and equipment	14	51,490	935
Right-of-use asset	15	2,990	358
Intangible assets	16	3,633	-
Deferred tax assets	17	1,710	-
Total non-current assets		81,477	10,015
Total assets		261,140	83,266
Liabilities			
Current liabilities			
Trade and other payables	18	8,354	1,335
Lease liabilities	15	439	39
Income tax liabilities		332	-
Provisions	19	608	55
Total current liabilities		9,733	1,429
Non-current liabilities			
Lease liabilities	15	2,566	314
Provisions	19	55	-
Deferred tax liabilities	20	1,463	-
Total Non-current liabilities		4,084	314
Total liabilities		13,817	1,743
Net assets		247,323	81,523
Equity			
Share capital	21	258,933	85,272
Reserves	22	16,812	5,822
Accumulated losses	35	(28,422)	(9,571)
Total equity		247,323	81,523

The Consolidated Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the notes to the financial statements.

17.4.3 Consolidated Statement of Changes in Equity

For the Financial Year Ended 30 June 2022

Consolidated	Issued Capital €'000	Reserves €'000	Foreign Currency Reserve €'000	Accumula ted Losses €'000	Total €'000
At 1 July 2021	85,272	4,995	827	(9,571)	81,523
Loss for the year	-	-	-	(18,851)	(18,851)
Other comprehensive income	-	-	6,990	-	6,990
Total comprehensive loss for the year after tax	-	-	6,990	(18,851)	(11,861)
Transactions with owners in their capacity as owners:					
Issue of share capital	178,040				178,040
Share issue costs	(4,379)				(4,379)
Share-based payments	-	4,000	-	-	4,000
Balance at 30 June 2022	258,933	8,995	7,817	(28,422)	247,323

Consolidated	Issued Capital €'000	Reserves €'000	Foreign Currency Reserve €'000	Accumula ted Losses €'000	Total €'000
At 1 July 2020	7,233	1,065	(22)	(2,845)	5,431
Loss for the year	-	-	-	(6,726)	(6,726)
Other comprehensive loss	-		849		849
Total comprehensive loss for the year after tax	-	-	849	(6,726)	(5,877)
Transactions with owners in their capacity as owners:					
Issue of share capital	81,882	-	-	-	81,882
Share issue costs	(3,843)	-	-	-	(3,843)
Share-based payments	-	3,930		-	3,930
Balance at 30 June 2021	85,272	4,995	827	(9,571)	81,523

The Consolidated Statement of Changes in Equity should be read in conjunction with the notes to the financial statements.

17.4.4 Consolidated Statement of Cash Flows

For the Financial Year Ended 30 June 2022

		30-Jun- 2022 €'000	30-Jun-2021 €'000
Cash flows from operating activities	Note		
Receipts from customers		3,799	-
Payments to suppliers and employees		(15,400)	(2,157)
Interest received		228	63
Other income		317	320
Interest paid		(291)	(4)
Net cash used in operating activities	9	(11,347)	(1,778)
Cash flows from investing activities			
Payments for exploration and evaluation expenditure		(9,384)	(3,651)
Payment for plant and equipment		(22,793)	(822)
Payment to acquire subsidiary	26	(32,685)	-
Net cash acquired from acquisition of subsidiary	26	1,230	-
Payments to acquire financial assets		(30,008)	-
Proceeds from disposal of financial assets		29,282	-
Net cash used in investing activities		(64,358)	(4,473)
Cash flows from financing activities			
Proceeds from exercise of listed options		-	2,774
Proceeds from issued shares		176,208	75,119
Share issue costs		(4,378)	(3,844)
Lease repayments		(185)	(14)
Repayment of loan from Associate		409	-
Net cash from financing activities		172,054	74,035
Net increase in cash and cash equivalents		96,349	67,784
Cash and cash equivalents at the beginning of the year		72,784	4,058
Effect of exchange rate fluctuations on cash held		6,573	652
Cash and cash equivalents at the end of the year	8	175,416	72,494

The Consolidated Statement of Cash Flows should be read in conjunction with the notes to the financial statements.

17.4.5 Notes to the Consolidated Financial Statements

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of the financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

(a) Reporting Entity

Vulcan Energy Resources Limited (referred to as "Vulcan" or the "Company") is a company domiciled in Australia. The address of the Company's registered office and principal place of business is Level 11, Brookfield Place, 125 St Georges Terrace, Perth WA 6005. The consolidated financial statements of the Company as at and for the year ended 30 June 2022 comprise the Company and its subsidiaries (together referred to as the "consolidated entity" or the "Group"). The principal activity of the Group is geothermal energy and lithium exploration and production.

(b) Basis of Preparation

Statement of compliance

The consolidated financial statements are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") and the Corporations Act 2001. The consolidated financial statements comply with International Financial Reporting Standards ("IFRS") adopted by the International Accounting Standards Board ("IASB"). Vulcan Energy Resources Limited is a for-profit entity for the purpose of preparing the financial statements.

The annual report was authorised for issue by the Board of Directors on 28 September 2022.

Change in Presentation Currency and Foreign Currency Translation

Vulcan Energy Resources Limited changed its presentation currency from Australian dollars to Euro effective from 1 July 2021. The functional currency remains Australian dollars for Australian entities and Euro for entities located outside of Australia.

Functional and presentation currency

Items included in the financial statements of each of the consolidated entities are measured using the currency of the primary economic environment in which the entity operates ("functional currency"). The consolidated financial statements are presented in Euro, which is Vulcan Energy Resources Limited's presentation currency.

Basis of measurement

The consolidated financial statements have been prepared on a going concern basis in accordance with the historical cost convention, unless otherwise stated.

Parent entity information

In accordance with the Corporations Act 2001, these financial statements present the results of the consolidated entity only. Supplementary information about the parent entity is disclosed in Note 36.

Rounding of amounts

The company is of a kind referred to in Corporations Instrument 2016/191, issued by the Australian Securities and Investments Commission, relating to 'rounding-off'. Amounts in this report have been rounded off in accordance with that Corporations Instrument to the nearest thousand Euro, unless otherwise stated.

New or amended Accounting Standards and Interpretations adopted

The consolidated entity has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period.

Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

Current and non-current classification

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

Deferred tax assets and liabilities are always classified as non-current.

New standards and interpretations not yet mandatory or early adopted

Australian Accounting Standards and Interpretations relevant to the Group that have recently been issued or amended but are not yet mandatory, have not been adopted by the Group for the annual reporting period ended 30 June 2022. The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations.

The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations but does not expect it to have a significant impact on the Group's results.

Significant Judgements and Estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the consolidated entity's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 2.

(c) Principles of Consolidation

Subsidiaries

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of Vulcan Energy Resources Limited ('Company' or 'parent entity') as at 30 June 2022 and the results of all subsidiaries for the year then ended.

Subsidiaries are all entities (including special purpose entities) over which the consolidated entity has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one-half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the consolidated entity controls another entity.

Subsidiaries are fully consolidated from the date on which control is transferred to the consolidated entity. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between consolidated entity companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries

have been changed where necessary to ensure consistency with the policies adopted by the consolidated entity.

Subsidiaries (cont)

The acquisition method of accounting is used to account for business combinations by the consolidated entity. A change in ownership interest, without the loss of control, is accounted for as an equity transaction, where the difference between the consideration transferred and the book value of the share of the non-controlling interest acquired is recognised directly in equity attributable to the parent.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of profit or loss and other comprehensive income, statement of changes in equity and statement of financial position respectively.

Where the consolidated entity loses control over the subsidiary, it derecognises the assets including goodwill, liabilities and non-controlling interest in the subsidiary together with any cumulative transaction differences recognised in equity. The consolidated entity recognises the fair value of the consideration received and the fair value of any investment retained together with any gain or loss on profit or loss.

(d) Foreign Currency Transactions

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

(e) Foreign operations

The assets and liabilities of foreign operations are translated into Euro using the exchange rates at the reporting date. The revenues and expenses of foreign operations are translated into Euro using the average exchange rates, which approximate the rates at the dates of the transactions, for the period. All resulting foreign exchange differences are recognised in other comprehensive income through the foreign currency reserve in equity.

NOTE 2 CRITICAL ACCOUNTING ESTIMATES, JUDGEMENTS AND ASSUMPTIONS

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses.

Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions in these financial statements that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period are disclosed below.

Business combinations

Business combinations are initially accounted for on a provisional basis. The fair value of assets acquired, liabilities and contingent liabilities assumed are initially estimated by the consolidated entity taking into consideration all available information at the reporting date. Fair value adjustments on the finalisation of the business combination accounting is retrospective, where applicable, to the period the combination occurred and may have an impact on the assets and liabilities, depreciation and amortisation reported.

Exploration and evaluation expenditure

Exploration and evaluation costs have been capitalised on the basis that the consolidated entity will commence commercial production in the future, from which time the costs will be amortised in proportion to the depletion of the mineral resources. Key judgements are applied in considering costs to be capitalised which includes determining expenditures directly related to these activities and allocating overheads between those that are expensed and capitalised. In addition, costs are only capitalised that are expected to be recovered either through successful development or sale of the relevant mining interest. Factors that could impact the future commercial production at the mine include the level of reserves and resources, future technology changes, which could impact the cost of mining, future legal changes and changes in commodity prices. To the extent that capitalised costs are determined not to be recoverable in the future, they will be written off in the period in which this determination is made.

Share-based payments

The Group measures the cost of equity settled transactions with Directors, employees and consultants, where applicable, by reference to the fair value of equity instruments at the date at which they are granted. The fair value is determined using an appropriate valuation model taking into account the terms and conditions upon which the instruments were granted. The accounting estimates and assumptions relating to equity-settled share-based payments would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact profit or loss and equity.

Estimation of useful lives of assets

The consolidated entity determines the estimated useful lives and related depreciation and amortisation charges for its plant and equipment. The useful lives could change significantly as a result of technical innovations or some other event. The depreciation and amortisation charge will increase where the useful lives are less than previously estimated lives, or technically obsolete or non-strategic assets that have been abandoned or sold will be written off or written down.

Goodwill and other indefinite life intangible assets

The consolidated entity tests annually, or more frequently if events or changes in circumstances indicate impairment, whether goodwill and other indefinite life intangible assets have suffered any impairment, in accordance with the accounting policy stated in note 1. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of assumptions, including estimated discount rates based on the current cost of capital and growth rates of the estimated future cash flows. Refer to note 16 for further information.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets

The consolidated entity assesses impairment of non-financial assets other than goodwill and other indefinite life intangible assets at each reporting date by evaluating conditions specific to the consolidated entity and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Income tax

The consolidated entity is subject to income taxes in the jurisdictions in which it operates. Significant judgement is required in determining the provision for income tax. There are many transactions and calculations undertaken during the ordinary course of business for which the ultimate tax determination is uncertain. The consolidated entity recognises liabilities for anticipated tax audit issues based on the consolidated entity's current understanding of the tax law. Where the final tax outcome of these matters is different from the carrying amounts, such differences will impact the current and deferred tax provisions in the period in which such determination is made.

Recovery of deferred tax assets

Deferred tax assets are recognised for deductible temporary differences only if the consolidated entity considers it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Lease term

The lease term is a significant component in the measurement of both the right-of-use asset and lease liability. Judgement is exercised in determining whether there is reasonable certainty that an option to extend the lease or purchase the underlying asset will be exercised, or an option to terminate the lease will not be exercised, when ascertaining the periods to be included in the lease term. In determining the lease term, all facts and circumstances that create an economical incentive to exercise an extension option, or not to exercise a termination option, are considered at the lease commencement date. Factors considered may include the importance of the asset to the consolidated entity's operations; comparison of terms and conditions to prevailing market rates; incurrence of significant penalties; existence of significant leasehold improvements; and the costs and disruption to replace the asset. The consolidated entity reassesses whether it is reasonably certain to exercise an extension option, or not exercise a termination option, if there is a significant event or significant change in circumstances.

Incremental borrowing rate

Where the interest rate implicit in a lease cannot be readily determined, an incremental borrowing rate is estimated to discount future lease payments to measure the present value of the lease liability at the lease commencement date. Such a rate is based on what the consolidated entity estimates it would have to pay a third party to borrow the funds necessary to obtain an asset of a similar value to the right-of-use asset, with similar terms, security and economic environment.

NOTE 3 SEGMENT INFORMATION

Accounting Policy

Segment Reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board. Management has determined that based on the report reviewed by the Board and used to make strategic decisions, that the consolidated entity has three reportable segment.

Identification of reportable operating segments

The consolidated entity is organised into three operating segments based on geographical location: Germany, Other European (comprised of France, Norway and Italy) and Australia. These operating segments are based on the internal reports that are reviewed and used by the Board of Directors (who are identified as the Chief Operating Decision Makers (CODM)) in assessing performance and in determining the allocation of resources. There is no aggregation of operating segments.

The CODM reviews EBITDA (earnings before interest, tax, depreciation and amortisation). The accounting policies adopted for internal reporting to the CODM are consistent with those adopted in the financial statements.

The information reported to the CODM is on a monthly basis.

Types of products and services

Germany – the supply of geothermal energy, exploration relating to the Zero Carbon Lithium Project™ and engineering services

France, Norway and Italy – exploration relating to battery minerals and geothermal lithium.

Australia – administration and Definitive Feasibility Study ("DFS") ongoing costs.

Intersegment transactions

Intersegment transactions were made at market rates. Engineering services have been provided within the German segment. All intersegment receivables and payables, including the profit margin, are eliminated on consolidation

Major customers

During the year ended 30 June 2022, approximately €3.0m (2021: nil) of the consolidated entity's external revenue was derived from sales to Pfalzwerke.

Segment performance	Germany	Other European	Australia	Total
30/06/2022	€'000	€'000	€'000	€'000
Revenue				
Revenue from continuing operations	3,799	-	-	3,799
Intersegment sales – Other own work capitalised	3,696	-	-	3,696
Other income	346	-	199	545
Gain on deconsolidation	-	-	1,975	1,975
Share of loss on Investment	-	-	(495)	(495)
Total segment revenue	7,841	-	1,679	9,520
EBITDA	(7,022)	-	(8,775)	(15,797)
Depreciation and amortisation	(2,629)	-	-	(2,629)
Finance income/(expense) net	(4)	-	(56)	(60)
Loss before income tax expense	(9,655)	-	(8,831)	(18,486)
Income tax expense	(365)	-	-	(365)
Loss after income tax expense	(10,020)	-	(8,831)	(18,851)
Material items include:				
Employee benefit expense	(6,784)	-	(1,009)	(7,793)
Share based payments expense	-	-	(3,637)	(3,637)
	Germany	Other European	Australia	Total
	€'000	€'000	€'000	€'000
Assets				
Segment assets	115,874	160	263,218	379,252
Intersegment eliminations	-	-	-	(118,112)
Total assets				<u>261,140</u>
Liabilities				
Segment liabilities	16,796	160	3,527	20,483
Intersegment eliminations	-	-	-	(6,666)
Total Liabilities				<u>13,817</u>

For the year ended 30 June 2021

Segment performance	Exploration Germany	Exploration Norway	Australia	Total
30-Jun-21	€'000	€'000	€'000	€'000

Revenue

Interest income	-	-	75	75
Other income	205	-	115	320
Total segment revenue	205	-	191	395

Reconciliation of segment results to net loss

before tax:

Amounts not included in segment results but reviewed by the Board

- Administration, consulting and other expenses				(7,121)
Net loss before tax from continuing operations				(6,726)

Segment assets	Exploration Germany	Exploration Norway	Administration	Total
30-Jun-21	€'000	€'000	€'000	€'000
Total segment asset	10,431	245	72,590	83,266

Segment liabilities	Exploration Germany	Exploration Norway	Administration	Total
30-Jun-21	€'000	€'000	€'000	€'000
Total segment liabilities	1,135	228	380	1,743

NOTE 4 REVENUE

	2022 €'000	2021 €'000
<i>Revenue from contract with customers</i>		
Sale of goods	2,977	-
Rendering of services	822	-
	<u>3,799</u>	<u>-</u>
Revenue from continuing operations	<u>3,799</u>	<u>-</u>

Disaggregation of revenue

	Electricity sales €'000	Engineering Services €'000	Total €'000
2022			
Timing of revenue recognition			
Goods transferred at a point in time	2,977	-	2,977
Services transferred over time	-	822	822
	<u>2,977</u>	<u>822</u>	<u>3,799</u>

Accounting Policy

The consolidated entity recognises revenue as follows:

Revenue from contracts with customers

Revenue is recognised at an amount that reflects the consideration to which the consolidated entity is expected to be entitled in exchange for transferring goods or services to a customer. For each contract with a customer, the consolidated entity: identifies the contract with a customer; identifies the performance obligations in the contract; determines the transaction price which takes into account estimates of variable consideration and the time value of money; allocates the transaction price to the separate performance obligation on the basis of the relative stand-alone selling price of each distinct good or service to be delivered ; and recognises revenue when or as each performance obligation is satisfied in a manner that depicts the transfer to the customer of the goods and services promised.

Variable consideration within the transaction price, if any, reflects concessions provided to the customer such as discounts, rebates and refunds, any potential bonuses receivable from the customer and any other contingent events. Such estimates are determined using either the 'expected value' or 'most likely amount' method. The measurement of variable consideration is subject to a constraining principle whereby revenue will only be recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. The measurement constraint continues until the uncertainty associated with the variable consideration is subsequently resolved. Amounts received that are subject to the constraining principle are recognised as a refund liability.

Sale of goods

Revenue from the sale of goods is recognised at the point in time when the customer obtains control of the goods, which is generally at the time of delivery.

Rendering of services

Revenue from a contract to provide services is recognised over time as the services are rendered based on either a fixed price or an hourly rate.

NOTE 5 OTHER INCOME

	2022 €'000	2021 €'000
Government grants	317	31
Interest income	228	75
R&D tax incentive	-	84
InnoEnergy Funding	-	205
	<u>545</u>	<u>395</u>

	2022 €'000	2021 €'000
Other own work capitalised	3,696	-
	<u>3,696</u>	<u>-</u>

Accounting Policy

Interest

Interest revenue is recognised as interest accrues.

Other revenue

Other revenue is recognised when it is received or when the right to receive payment is established.

Other own work capitalised

Gec-co Global Engineering and Consulting-Company GmbH (renamed to Vulcan Energy Engineering GmbH VEE) and GeoThermal Engineering GmbH (renamed to Vulcan Energy Subsurface Solutions GmbH VES) provide services to Vulcan Energie Ressourcen GmbH, a wholly owned subsidiary of Vulcan Energy Resources Limited which have been capitalised to exploration and evaluation expenditure and property, plant and equipment. These services are disclosed in the statement of profit or loss and other comprehensive income as other own work capitalised. The expenses incurred by Vulcan Energy Engineering GmbH (previously Global Engineering and Consulting- Company GmbH) and Vulcan Energy Subsurface Solutions GmbH (previously GeoThermal Engineering GmbH) to provide these services are disclosed in the statement of profit or loss and other comprehensive income as employee benefit expenses. Other own work capitalised does not relate to any external revenue or any profit margin charge to intercompany transactions.

NOTE 6 EXPENSES

	2022 €'000	2021 €'000
(a) Administrative expenses		
Accounting, audit and company secretarial fees	311	65
Travel expenses	372	33
General expenses	3,140	458
	<u>3,823</u>	<u>556</u>
(b) Consultancy and legal expenses		
Corporate advisory fees	286	55
Consulting fees	1,573	660
Legal fees	2,240	489
	<u>4,099</u>	<u>1,204</u>
(c) Employee benefit expense		
Wages and salaries	6,640	391
Other benefits	1,153	-
	<u>7,793</u>	<u>391</u>
(d) Depreciation and amortisation		
Software	94	3
Plant and Equipment	1,856	61
Right of use assets	200	18
Intangible assets	479	-
	<u>2,629</u>	<u>82</u>

NOTE 7 INCOME TAX

	2022 €'000	2021 €'000
(a) The components of tax expense comprise:		
Current tax	462	-
Deferred tax	(97)	-
Income tax expense reported in the of profit or loss and other comprehensive income	365	-
(b) The prima facie tax on loss from ordinary activities before income tax is reconciled to the income tax as follows:		
Loss before income tax expense	(18,486)	(6,726)
Prima facie tax benefit on loss before income tax at 30% (2021: 30%)	(5,546)	(2,018)
Tax effect of amounts that are not deductible/taxable in calculating taxable income		
Non-deductible expense	682	1,422
Tax losses and temporary differences not brought to account	3,688	499
Foreign corporate rate differential	1,541	97
Income tax expense	365	-
c) Deferred tax assets/(liabilities) not brought to accounts are:		
Accruals	136	59
Prepayments	(107)	(14)
Other	2,308	41
Tax losses	2,461	664
Total deferred tax balances not brought to account	4,798	750

Except for the deferred tax assets (note 17) and deferred tax liabilities (note 20) recognised in the subsidiary, Natürlich Insheim GmbH, potential deferred tax assets attributable to tax losses and other temporary differences have not been brought to account at 30 June 2022 because the directors do not believe it is appropriate to regard realisation of the deferred tax assets as probable at this point in time. These benefits will only be obtained if:

- the consolidated entity derives future assessable income of a nature and of an amount sufficient to enable the benefit from the deductions for the expenditure to be realised; and
- no changes in tax legislation adversely affect the consolidated entity in realising the benefit from the deductions for the expenditure.

Accounting Policy

The income tax expense (revenue) for the year comprises current income tax expense (income) and deferred tax expense (income).

Current Tax

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

Deferred Tax

Deferred tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year

as well as unused tax losses.

Current and deferred income tax expense (income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

Deferred tax assets and liabilities are ascertained based on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets also result where amounts have been fully expensed but future tax deductions are available. No deferred income tax will be recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax assets and liabilities are calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates enacted or substantively enacted at the end of the reporting period. Their measurement also reflects the manner in which management expects to recover or settle the carrying amount of the related asset or liability.

Deferred tax assets relating to temporary differences and unused tax losses are recognised only to the extent that it is probable that future taxable profit will be available against which the benefits of the deferred tax asset can be utilised.

Where temporary differences exist in relation to investments in subsidiaries, branches, associates, and joint ventures, deferred tax assets and liabilities are not recognised where the timing of the reversal of the temporary difference can be controlled and it is not probable that the reversal will occur in the foreseeable future.

Current tax assets and liabilities are offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities are offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

NOTE 8 LOSS PER SHARE

	2022	2021
Net loss for the year €'000	(18,851)	(6,726)
Weighted average number of ordinary shares for basic and diluted loss per share	124,671,203	87,204,203
Basic and diluted loss per share (Euro)	(0.15)	(0.08)

Accounting Policy

Basic Loss Per Share

Basic loss per share is determined by dividing net profit or loss after income tax attributable to members of the Company, excluding any costs of servicing equity other than ordinary shares, by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the year.

Diluted Loss Per Share

Diluted loss per share adjusts the figures used in the determination of basic earnings per share to take into account the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential ordinary shares.

NOTE 9 CASH AND CASH EQUIVALENTS

	2022 €'000	2021 €'000
Cash at bank and in hand	150,378	3,891
Short-term deposits	25,038	68,603
	<u>175,416</u>	<u>72,494</u>

Reconciliation of net loss after tax to net cash flows from operations

	2022 €'000	2021 €'000
Loss for the financial year	(18,851)	(6,726)
Share based payment expense	3,637	4,080
Impairment expense	36	143
Depreciation and amortisation	2,629	82
Share issued in exchange for services	478	213
Gain on deconsolidation	(1,975)	-
Share of loss on investment	495	-
FX differences	105	63
Changes in assets/liabilities		
Trade and other receivables	(697)	(72)
Trade and other payables	2,249	392
Movement in provisions	547	47
Net cash used in operating activities	<u>(11,347)</u>	<u>(1,778)</u>

Accounting Policy*Cash and cash equivalents*

Cash at bank earns interest at floating rates based on daily deposit rates. Short-term deposits are made in varying periods between one day and three months, depending on the immediate cash requirements of the Group and earn interest at the respective short-term deposit rates.

NOTE 10 TRADE AND RECEIVABLES

	2022 €'000	2021 €'000
Trade and other receivables	4,073	757
Less: Allowance for expected credit loss	(43)	-
	4,030	757

Allowance for expected credit loss

Trade and other receivables are non-interesting bearing and are generally on terms of 30 days. A provision for €43,000 (30 June 2021: nil) has been recorded to cover expected credit loss.

Accounting Policy

Trade and other receivables

Trade and other receivables include amounts due from customers for goods sold and services performed in the ordinary course of business. Receivables expected to be collected within 12 months of the end of the reporting period are classified as current assets.

Goods and Services Tax ('GST')

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position.

Commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to, the tax authority. Cash flows are presented in the statement of cash flows on a gross basis, except for the GST on investing and financial activities, which are disclosed as operating cash flows.

Value Added Tax ("VAT")

Revenues expenses and assets are recognised net of VAT, except where the amount of VAT incurred is not recoverable from the German tax authority. In these circumstances the VAT is recognised as part of the cost of acquisition or parts of the expense. Receivables and payables are stated inclusive of the amount of VAT receivable or payable. The net amount of VAT recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position. Cash flows are presented in the statement of cash flows on a gross basis, except for the VAT on investing and financial activities, which are disclosed as operating cash flows.

Investments and other financial assets

Investments and other financial assets are initially measured at fair value. Transaction costs are included as part of the initial measurement, except for financial assets at fair value through profit or loss. Such assets are subsequently measured at either amortised cost or fair value depending on their classification. Classification is determined based on both the business model within which such assets are held and the contractual cash flow characteristics of the financial asset unless an accounting mismatch is being avoided.

Financial assets are derecognised when the rights to receive cash flows have expired or have been transferred and the consolidated entity has transferred substantially all the risks and rewards of ownership. When there is no reasonable expectation of recovering part or all of a financial asset its carrying value is written off.

Financial assets at fair value through profit or loss

Financial assets not measured at amortised cost or at fair value through other comprehensive income are classified as financial assets at fair value through profit or loss. Typically, such financial assets will be either: (i) held for trading, where they are acquired for the purpose of selling in the short-term with an intention of making a profit, or a derivative; or (ii) designated as such upon initial recognition where permitted. Fair value movements are recognised in profit or loss.

Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income include equity investments which the consolidated entity intends to hold for the foreseeable future and has irrevocably elected to classify them as such upon initial recognition.

Impairment of financial assets

The consolidated entity recognises a loss allowance for expected credit losses on financial assets which are either measured at amortised cost or fair value through other comprehensive income. The measurement of the loss allowance depends upon the consolidated entity's assessment at the end of each reporting period as to whether the financial instrument's credit risk has increased significantly since initial recognition, based on reasonable and supportable information that is available, without undue cost or effort to obtain.

Where there has not been a significant increase in exposure to credit risk since initial recognition, a 12-month expected credit loss allowance is estimated. This represents a portion of the asset's lifetime expected credit losses that is attributable to a default event that is possible within the next 12 months. Where a financial asset has become credit impaired or where it is determined that credit risk has increased significantly, the loss allowance is based on the asset's lifetime expected credit losses. The amount of expected credit loss recognised is measured on the basis of the probability weighted present value of anticipated cash shortfalls over the life of the instrument discounted at the original effective interest rate.

NOTE 11 CONTRACT ASSETS

	2022 €'000	2021 €'000
Contract assets	79	-
	2022 €'000	2021 €'000
<i>Reconciliation</i>		
Reconciliation of the written down values at the beginning and end of the current and previous financial year are set out below		
Opening balance	-	-
Transfer from inventory	79	-
Closing balance	79	-

Accounting policy

Contract assets

Contract assets are recognised when the consolidated entity has transferred goods and services to the customer but where the consolidated entity is yet establish an unconditional right to consideration. Contract assets are treated as financial assets for impairment purposes.

NOTE 12 INVENTORIES

	2022 €'000	2021 €'000
Spare parts	138	-
	138	-

Accounting policy*Inventories*

Raw materials, work in progress and finished goods are stated at the lower of cost and net realisable value on a "first in first out" basis. Cost comprises of direct materials and delivery costs, direct labour, import duties and other taxes, an appropriate proportion of variable and fixed overhead expenditure based on normal operating capacity, and, where applicable transfers from cash flow hedging reserves in equity. Costs of purchased inventory are determined after deducting rebates and discounts received or receivable.

NOTE 13 EXPLORATION AND EVALUATION EXPENDITURE

	2022 €'000	2021 €'000
Carrying amount of exploration and evaluation expenditure	20,440	8,722
At the beginning of the year	8,722	1,563
Exploration expenditure incurred	11,273	3,590
Performance shares issued upon acquisition of GGH	363	-
Deconsolidation of Kuniko Ltd	(335)	-
Vulcan Energy Europe acquisition	-	3,627
Impairment expense	-	(143)
Forex Gain	417	85
At the end of the year	20,440	8,722

Accounting Policy*Exploration and evaluation expenditure*

Acquisition, exploration, and evaluation costs associated with mining tenements are accumulated in respect of each identifiable area of interest. These costs are only carried forward to the extent that the rights of tenure to that area of interest are current and that the costs are expected to be recouped through the successful commercial development or sale of the area or where activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves.

Costs in relation to an abandoned area are written off in full against profit in the period in which the decision to abandon the area is made.

Each area of interest is also reviewed annually, and acquisition costs written off to the extent that they will not be recoverable in the future.

NOTE 14 PLANT AND EQUIPMENT

	2022 €'000	2021 €'000
Software	267	109
Plant & Equipment	28,439	356
Assets under Construction	22,784	470
	<u>51,490</u>	<u>935</u>

Movement in carrying amounts of plant and equipment for year ended 30 June 2022

	Software €'000	Plant & Equipment €'000	Assets under construction €'000	Total €'000
Balance at 1 July 2021	109	356	470	935
Acquired in business combinations	34	28,131	191	28,356
Additions	134	1,892	22,123	24,149
Depreciation	(10)	(1,940)	-	(1,950)
Balance at 30 June 2022	<u>267</u>	<u>28,439</u>	<u>22,784</u>	<u>51,490</u>

Movement in carrying amounts of plant and equipment for year ended 30 June 2021

	Software €'000	Plant & Equipment €'000	Assets under construction €'000	Total €'000
Balance at 1 July 2020	8	-	-	8
Additions	103	414	465	982
Depreciation	(3)	(61)	-	(64)
Forex Loss	1	3	5	9
Balance at 30 June 2021	<u>109</u>	<u>356</u>	<u>470</u>	<u>935</u>

Accounting Policy**Property, plant and equipment**

Plant and equipment is stated at historical cost less accumulated depreciation and impairment. Historical cost

includes expenditure that is directly attributable to the acquisition of the items

Once assets are available for use, depreciation is calculated using the straight-line method to allocate asset costs over their estimated useful lives, as follows:

Software	3 -5 years
Plant & Equipment	2-15 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

NOTE 15 LEASES

Right-of-use asset	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Cost				
At 1 July 2021	334	38	-	372
Additions	2,908	261	21	3,190
Leases relinquished	(334)	(38)	-	(372)
At 30 June 2022	2,908	261	21	3,190
Accumulated Depreciation				
At 1 July 2021	10	4	-	14
Depreciation for the year	(107)	(83)	(10)	(200)
Eliminated upon relinquishment	(10)	(4)	-	(14)
	(107)	(83)	(10)	(200)
Carrying amount				
At 1 July 2021	324	34	-	358
At 30 June 2022	2,801	178	11	2,990

Right-of-use asset	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Cost				
At 1 July 2020	-	-	-	-
Additions	334	38	-	372
At 30 June 2021	334	38	-	372
Accumulated Depreciation				
At 1 July 2020	-	-	-	-
Depreciation for the year	(10)	(4)	-	(14)
	(10)	(4)	-	(14)
Carrying amount				
At 1 July 2020	-	-	-	-
At 30 June 2021	324	34	-	358

	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Lease Liabilities				
At 1 July 2021	325	28	-	353
New lease liabilities entered during the period	2,908	262	21	3,191
Leases relinquished	(325)	(28)	-	(353)
Add: Interest	27	6	-	33
Less: Payment	(131)	(78)	(10)	(219)
Closing Balance	2,804	190	11	3,005

Represented by:				
Current lease liabilities	326	104	9	439

Non-current lease liabilities	2,478	86	2	2,566
	2,804	190	11	3,005

	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Lease Liabilities				
At 1 July 2020	0	0	-	0
New lease liabilities entered during the period	334	37	-	371
Add: Interest	2	1	-	3
Less: Payment	(11)	(10)	-	(21)
Closing Balance	325	28	0	353
Represented by:				
Current lease liabilities	35	4	-	39
Non-current lease liabilities	290	24	-	314
	325	28	0	353

Accounting Policy

Right-of-use assets:

A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and, except where included in the cost of inventories, an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Where the consolidated entity expects to obtain ownership of the leased asset at the end of the lease term, the depreciation is over its estimated useful life. Right-of use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

The consolidated entity has elected not to recognise a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of low-value assets. Lease payments on these assets are expensed to profit or loss as incurred.

Lease liabilities

A lease liability is recognised at the commencement date of a lease. The lease liability is initially recognised at the present value of the lease payments to be made over the term of the lease, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the consolidated entity's incremental borrowing rate. Lease payments comprise of fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be paid under residual value guarantees, exercise price of a purchase option when the exercise of the option is reasonably certain to occur, and any anticipated termination penalties. The variable lease payments that do not depend on an index or a rate are expensed in the period in which they are incurred.

Lease liabilities are measured at amortised cost using the effective interest method. The carrying amounts are remeasured if there is a change in the following: future lease payments arising from a change in an index or a rate used; residual guarantee; lease term; certainty of a purchase option and termination penalties. When a lease liability is remeasured, an adjustment is made to the corresponding right-of use asset, or to profit or loss if the carrying amount of the right-of-use asset is fully written down.

The Group leases office space, a laboratory and vehicles through its German subsidiary Vulcan Energie Ressourcen GmbH.

NOTE 16 INTANGIBLE ASSETS

	2022 €'000	2021 €'000
Goodwill	1,076	-
Less: Impairment	(36)	-
	<u>1,040</u>	<u>-</u>
Customer contracts – at cost	1,526	-
Less: Accumulated amortisation	(386)	-
	<u>1,140</u>	<u>-</u>
Order backlog – at cost	46	-
Less: Accumulated amortisation	(46)	-
	<u>-</u>	<u>-</u>
Operating permit – at cost	1,500	-
Less: Accumulated amortisation	(47)	-
	<u>1,453</u>	<u>-</u>
	<u>3,633</u>	<u>-</u>

Reconciliation of the written down values at the beginning and the end of the current and previous financial year are set out below:

	Customer Contracts €'000	Order backlog €'000	Operating Permit €'000	Goodwill €'000	TOTAL €'000
Balance at 1 July 2021	-	-	-	-	-
Acquired through business combinations	1,526	46	1,500	1,076	4,148
Less: Accumulated depreciation	(386)	(46)	(47)	-	(479)
Less: Impairment	-	-	-	(36)	(36)
Balance at 30 June 2022	<u>1,140</u>	<u>-</u>	<u>1,453</u>	<u>1,040</u>	<u>3,633</u>

Impairment testing

Goodwill acquired through business combinations have been allocated to the following cash-generating units:

	€'000
Natürlich Insheim	35
GeoThermal Engineering GmbH (Geo-) - renamed to Vulcan Energy	1
Subsurface Solutions GmbH	
Global Engineering & Consulting-Company GmbH (Gec-co) - renamed to	1,040
Vulcan Energy Engineering GmbH	
	<u>1,076</u>

The consolidated entity has subsequently impaired the goodwill related to Insheim and GeoT as at 30 June 2022.

The recoverable amount of the consolidated entity's goodwill has been determined by a value-in-use calculation using a discounted cash flow model, based on a 5 year projection period approved by management, together with terminal value.

The following key assumptions were used in the discounted cash flow model:

- 13.2% pre-tax discount rate
- 18% average per annum projected EBITDA

The discount rate of 13.2% pre-tax reflects management's estimate of the time value of money and Gec-co's weighted average cost of capital.

Sensitivity

As disclosed in note 2, the directors have made judgements and estimates in respect of impairment testing of goodwill. Should these judgements and estimates not occur the resulting goodwill carrying amount may decrease. The sensitivities are as follows:

- Pre-tax discount rate would be required to increase to 28.2% for goodwill to be impaired, with all other assumptions remaining constant.
- EBITDA would be required to decrease to 9% for goodwill to be impaired, with all other assumptions remaining constant.

Management believes that other reasonable changes in the key assumptions on which the recoverable amount of the engineering is based would not cause the cash-generating unit's carrying amount to exceed its recoverable amount.

If there are any negative changes in the key assumptions on which the recoverable amount of goodwill is based, this would result in further impairment charge for the engineering division's goodwill.

Accounting Policy

Goodwill and other indefinite life intangible assets

The consolidated entity tests annually, or more frequently if events or changes in circumstances indicate impairment, whether goodwill and other indefinite life intangible assets have suffered any impairment, in accordance with the accounting policy stated in note 1. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of assumptions, including estimated discount rates based on the current cost of capital and growth rates of the estimated future cash flows.

Intangible assets acquired as part of a business combination, other than goodwill, are initially measured at their fair value at the date of the acquisition. Intangible assets acquired separately are initially recognised at cost. Indefinite life intangible assets are not amortised and are subsequently measured at cost less any impairment. Finite life intangible assets are subsequently measured at cost less amortisation and any impairment. The gains or losses recognised in profit and loss arising from the derecognition of intangible assets are measured as the difference between the net disposal proceeds and the carrying amount of the intangible asset. The method and useful lives of finite life intangible assets are reviewed annually. Changes in the expected pattern of consumption or useful life are accounted for prospectively by changing the amortisation method or period.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets

The consolidated entity assesses impairment of non-financial assets other than goodwill and other indefinite life intangible assets at each reporting date by evaluating conditions specific to the consolidated entity and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Recoverable amount is the higher of an asset's fair value less costs of disposal and value-in-use. The value-in-use is the present value of the estimated future cash flows relating to the asset using a pre-tax discount rate specific to the asset or cash-generating unit to which the asset belongs.

Assets that do not have independent cash flows are grouped together to form a cash-generating unit.

NOTE 17 NON-CURRENT ASSETS : DEFERRED TAX

	2022 €'000	2021 €'000
Deferred tax asset comprises temporary differences attributable to:		
Other	18	-
Property, plant and equipment	1,692	-
 Deferred tax asset	 1,710	 -
<i>Movements:</i>		
Opening balance	-	-
Additions through business combinations	1,768	-
Charged to income statement	(58)	-
Closing balance	<u>1,710</u>	<u>-</u>

NOTE 18 TRADE AND OTHER PAYABLES

	2022 €'000	2021 €'000
Trade payables ⁽ⁱ⁾	6,183	912
Accrued expenses	802	82
Other payables	866	106
VAT Payable	503	235
	<u>8,354</u>	<u>1,335</u>

(i) Trade payables are non-interest bearing and are normally settled on 30-day terms.

Due to the short-term nature of these payables, their carrying value is assumed to be the same as their fair value.

Accounting Policy*Trade and other payables*

Trade payables and other payables represent liabilities for goods and services provided to the Group prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

NOTE 19 PROVISIONS

Current:

	2022 €'000	2021 €'000
Annual leave provision	<u>608</u>	<u>55</u>

Non-Current:

Other provisions	<u>55</u>	<u>-</u>

Amounts not expected to be settled within the next 12 months

The current provision for employee benefits includes all unconditional entitlements where employees have completed the required period of service and also those where employees are entitled to pro-rata payments in certain circumstances. The entire amount is presented as current, since the consolidated entity does not have an unconditional right to defer settlement. However, based on past experience, the consolidated entity does not expect all employees to take the full amount of accrued leave or require payment within the next 12 months.

Accounting Policy

Provisions

Provisions are recognised when the consolidated entity has a present (legal or constructive) obligation as a result of a past event, it is probable the consolidated entity will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation. If the time value of money is material, provisions are discounted using a current pre-tax rate specific to the liability. The increase in the provision resulting from the passage of time is recognised as a finance cost.

Employee benefits

Defined contribution superannuation expenses

Contributions to defined contribution superannuation plans are expensed in the period in which they are incurred.

Short-term employee benefits

Liabilities for wages and salaries, including non-monetary benefits, annual leave and long service leave expected to be settled wholly within 12 months of the reporting date are measured at the amounts expected to be paid when the liabilities are settled.

Other long-term employee benefits

The liability for annual leave and long service leave not expected to be settled within 12 months of the reporting date are measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on corporate bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

NOTE 20 NON-CURRENT LIABILITIES: DEFERRED TAX

	2022 €'000	2021 €'000
Deferred tax liability comprises temporary differences attributable to:		
Other	2	-
Property, plant and equipment	1,461	-
Deferred tax liability	1,463	-
<i>Movements:</i>		
Opening balance		
Additions through business combinations	1,618	-
Charged to income statement	(155)	-
Closing balance	1,463	-

NOTE 21 CONTRIBUTED EQUITY

	30-Jun-22		30-Jun-21	
	No.'000	€'000	No.'000	€'000
Fully paid ordinary shares	143,094	258,933	108,423	85,272

Ordinary shares

Ordinary shares entitle the holder to participate in the dividends and the proceeds on winding up in proportion to the number of and amounts paid on the shares held.

At shareholders meetings, each ordinary share is entitled to one vote when a poll is called, otherwise each shareholder has one vote on a show of hands.

Share buy-back

There is no current on-market share buy-back.

	Date	Number	Issue Price €	€'000
At 1 July 2021		108,422,717		85,272
Shares issued as consideration for acquisition of Gec-co.	6/07/2021	325,000	5.04	1,637
Shares issued as consideration for acquisition of GGH	6/07/2021	11,396	5.04	57
Shares issued for services rendered	19/08/2021	32,251	7.84	253
Placement	22/09/2021	14,814,815	8.35	123,680
Share Purchase Plan	18/10/2021	228,434	8.65	1,975
Exercise of warrants	1/12/2021	521,304	-	-
Placement	17/12/2021	65,317	8.47	553
Exercise of performance shares	17/12/2021	4,400,000	-	-
Exercise of performance rights	17/12/2021	2,786,364	-	-
Shares issued for services rendered	8/02/2022	37,492	6.00	225
Shares issued to Stellantis	27/06/2022	11,448,959	4.34	49,660
Less capital raising costs				(4,379)
At 30 June 2022		143,094,049		258,933

	Date	Number	Issue Price €	€'000
At 1 July 2020		67,217,755		7,193
Shares issued in lieu of cash fees for services rendered	6/10/2020	400,000	0.53	213
Conversion of Listed Options	2/07/2020-17/12/2020	8,930,765	0.18	1,621
Conversion of Unlisted Listed Options	15/10/2020-26/11/2020	1,125,250	0.50	564

Conversion of Class B Performance Rights Introducer shares	16/09/2020	500,000	-	-
Introducer shares	16/09/2020	660,000	0.56	368
Shares issued to Director	27/11/2020	100,000	1.49	149
Conversion of Class B Performance Shares	15/01/2021	4,400,000	-	-
Conversion of Class E and K Performance Shares	15/01/2021	2,250,000	-	-
Conversion of Listed Options	20/12/2020-20/01/2021	3,457,409	0.18	628
Placement	6/02/2021	18,423,077	4.07	74,964
Conversion of Class H Performance shares	11/05/2021	260,000	-	-
Less capital raising costs		-	-	(3,844)
Placement to Directors	30/06/2021	38,461	4.07	156
Introducer shares	30/06/2021	660,000	4.94	3,260
At 30 June 2021		108,422,717		85,272

Accounting Policy

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds. Incremental costs directly attributable to the issue of new shares or options for the acquisition of a business are not included in the cost of the acquisition as part of the purchase consideration.

If the entity reacquires its own equity instruments, for example, as a result of a share buy-back, those instruments are deducted from equity and the associated shares are cancelled. No gain or loss is recognised in the profit or loss and the consideration paid including any directly attributable incremental costs (net of income taxes) is recognised directly in equity.

NOTE 22 RESERVES

	2022 €'000	2021 €'000
Share-based payment reserve	8,995	4,995
Foreign currency translation reserve	7,817	827
Total	16,812	5,822

	Number of Warrants	Number of Performance Shares	Number of Performance Rights	€'000
<u>Movement reconciliation</u>				
On issue at 1 July 2021	512,447	4,400,000	11,238,688	4,995
Issue of performance rights during the year	-	-	204,000	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 30)	-	-	-	3,289
Performance shares issued upon purchase of GGH	-	91,174	-	363

Recognition of share - based payment expense for performance rights issued to Vendors on Acquisition (Note 30)	-	-	-	218
Issue of unlisted options during the year	-	-	-	-
Exercise of unlisted options during the year	-	-	-	-
Exercise of Performance rights during the year	-	-	(2,786,364)	-
Issue of warrants during the year	8,857	-	-	-
Warrants exercised during the year	(521,304)	-	-	-
Recognition of shared based payment expense for warrants	-	-	-	130
Exercise of Performance Shares during the year	-	(4,400,000)	-	-
On issue at 30 June 2022	-	91,174	8,656,324	8,995

NOTE 22 RESERVES (CONT.)

	Number of Warrants	Number of Listed options	Number of Unlisted Options	Number of Performance Shares	Number of Performance Rights	€ '000
<u>Movement reconciliatio</u> <u>n</u>	-	-	-	-	-	-
On issue at 1 July 2020	-	12,419,759	-	8,800,000	4,250,000	1,065
Issue of performance rights during the year	-	-	-	-	10,248,688	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 19)	-	-	-	-	-	2,766
Performance rights cancelled during the year	-	-	-	-	(250,000)	-
Recognition of share - based payment expense for performance rights issued	-	-	-	-	-	471

to Vendors on Acquisition (Note 19)						
Issue of unlisted options during the year	-	-	1,112,250	-	-	-
Exercise of unlisted options during the year			(1,112,250)	-	-	-
Recognition of share based payment expense for unlisted options issued (Note 19)	-	-	-	-	-	231
Exercise of listed options during the year	-	(12,388,174)	-	-	-	-
Listed options expired during the year	-	(31,585)	-	-	-	-
Exercise of Performance rights during the year	-	-	-	-	(3,010,000)	-
Warrants issued during the year	512,447		-	-	-	-
Recognition of shared based payment expense for warrants issued during the year	-	-	-	-	-	234
Exercise of Performance Shares during the year	-	-	-	(4,400,000)	-	-
Recognition of shared based payment expense for performance rights issued to Directors & staff in prior periods (Note 19)	-	-	-	-	-	228
On issue at 30 June 2021	512,447	-	-	4,400,000	11,238,688	4,995

NOTE 22 RESERVES (CONT.)

The option reserve is used to record the value of share-based payments provided to outside parties, and share-based remuneration provided to employees and directors.

Foreign Currency Translation Reserve

	2022 €'000	2021 €'000
Balance at the beginning of the year	827	(22)
Movement during the year	6,990	849
Balance at the end of the year	7,817	827

The reserve is used to recognise exchange differences arising from the translation of the financial statements of foreign operations to Euro.

NOTE 23 INVESTMENT IN ASSOCIATE

On 24 August 2021, Kuniko Limited successfully completed an initial public offering listing on the Australian Stock Exchange (ASX:KNI), thereby completing the spin-off of the Norwegian assets announced in June 2021. On the 17 August 2021, the initial public offering shares were issued, with the Company retaining a 25.85% shareholding. The loss of control of Kuniko Limited by the Company resulted in €1,975,185 gain on deconsolidation.

The following table summarises the deconsolidation of Kuniko Limited:

	€'000
Net liabilities on deconsolidation of Kuniko Limited	266
Revaluation of interest in Kuniko Limited	1,709
Gain on deconsolidation	1,975

The Company's interest in Kuniko Limited is recognised as an investment in associate accounted for using the equity method, resulting in €1,708,987 investment in associate at deconsolidation. Subsequently, the Company's share of Kuniko Limited's loss for the period was offset against the investment resulting in the amount recognised as investment in associate as follows:

	€'000
Initial carrying value on deconsolidation	1,709
Share of loss in Kuniko Limited for the period 17 August to 30 June 2022	(474)
Share of other comprehensive income	(21)
Investment in associate	1,214

NOTE 23 INVESTMENT IN ASSOCIATE (CONT)

Interests in associates are accounted for using the equity method of accounting. Information relating to associates that are material to the consolidated entity are set out below:

Name	Principal place of business / Country of incorporation	2022 %	Ownership interest 2021 %
Kuniko Ltd	Australia	20.24%	0%

	2022 €'000	Kuniko Ltd 2021 €'000
<i>Summarised statement of financial position</i>		
Current assets	6,985	53
Non-current assets	2,665	245
Total assets	9,650	298
Current liabilities	(678)	(243)
Non-current liabilities	-	(249)
Total liabilities	(678)	(492)
Net assets/(liabilities)	8,972	(194)
<i>Summarised statement of profit or loss and other comprehensive income</i>		
Revenue	-	-
Expenses	(1,391)	(400)
Loss before income tax	(1,391)	(400)
Income tax expense	-	-
Loss after income tax	(1,391)	(400)
Other comprehensive loss	(115)	-
Total comprehensive loss	(1,506)	(400)

Accounting policy

Associates

Associates are entities over which the consolidated entity has significant influence but not control or joint control. Investments in associates are accounted for using the equity method. Under the equity method, the share of the profits or losses of the associate is recognised in profit or loss and the share of the movements in equity is recognised in other comprehensive income. Investments in associates are carried in the statement of financial position at cost plus post-acquisition changes in the consolidated entity's share of net assets of the associate. Goodwill relating to the associate is included in the carrying amount of the investment and is neither amortised nor individually tested for impairment. Dividends received or receivable from associates reduce the carrying amount of the investment.

When the consolidated entity's share of losses in an associate equals or exceeds its interest in the associate, including any unsecured long-term receivables, the consolidated entity does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The consolidated entity discontinues the use of the equity method upon the loss of significant influence over the associate and recognises any retained investment at its fair value. Any difference between the associate's carrying amount, fair value of the retained investment and proceeds from disposal is recognised in profit or loss.

NOTE 24 ACQUISITION OF SUBSIDIARY

Global Geothermal Holding UG

On 2 July 2021 Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of the shares in Global Geothermal Holding UG ('GGH') with an effective date on 2 July 2021 (closing-date). Dr Horst Kreuter, CEO of Vulcan Energie Ressourcen GmbH, and a related party of Vulcan Energy Resources Limited, and Mr Thorsten Weimann, Chief Operating Officer and a related party of Vulcan Energy Resources Limited were the sole shareholders of GGH.

With a share price at closing date of €5.04 (AUD7.90), the agreed purchase price for 11,396 ordinary shares amounted to €57,411.

Additionally, 91,174 performance shares with a fair value €363,307 have been recognised as deferred consideration, based on management's assessment of the probability of achieving the performance milestones. The performance shares were issued in equal number to Dr Horst Kreuter and Mr Thorsten Weimann. Milestones as follows:

The Performance Shares will convert into Shares upon achievement of any of the following in relation to any of the licenses held by GGH:

- (a) the Company (or any of its subsidiaries) obtaining a positive approval for geothermal brine production from the relevant governmental authority following a provisional environmental impact assessment;
- (b) the Company (or any of its subsidiaries) obtaining approval for the construction and operation of a main operating plant under Germany's Federal Mining Act (BBergG);
- (c) the Company (or any of its subsidiaries) obtaining the first approval for a special operating plan in accordance with BBergG;
- (d) the Company (or any of its subsidiaries) the first approval or pre-approval from the relevant governmental authority for the construction of a geothermal organic rankine cycle plant; or
- (e) the Company (or any of its subsidiaries) obtaining the first approval or pre-approval from the relevant governmental authority for the construction of a direct lithium extraction (lithium conveying) plant.

Purchase Consideration:	€
Shares issued	57,411
Performance shares issued (refer to note 13)	363,307
Net consideration	420,718

Net Assets Acquired:	€
Fair value of net liabilities acquired	(1,193)
Exploration and evaluation expenditure	421,911
Net assets acquired	420,718

Management has determined that the acquisitions do not meet the definition of a business within AASB 3 Business Combinations. The transactions have been accounted for as an asset acquisition.

Since GGH is an entity which holds exploration licences including Taro where the majority of the indicated resources is generated from, the acquisition of GGH is considered an asset acquisition rather than a business combination.

NOTE 24 ACQUISITION OF SUBSIDIARY(CONT)

Accounting Policy

Asset Acquisition not constituting a Business

When an asset acquisition does not constitute a business combination, the assets and liabilities are assigned a carrying amount based on their relative fair values in an asset purchase transaction and no deferred tax will arise in relation to the acquired assets and assumed liabilities as the initial recognition exemption for deferred tax under AASB 112 applies. No goodwill will arise on the acquisition and transaction costs of the acquisition will be included in the capitalised cost of the asset.

NOTE 25 INTERESTS IN SUBSIDIARIES

The consolidated financial statements incorporate assets, liabilities and results of the following wholly-owned subsidiaries in accordance with the accounting policy described in note 1

Entity	Location	Primary activity	Date of foundation or acquisition	Ownership Interest 2022 (%)	Ownership Interest 2021 (%)
Global Geothermal Holding UG	Karlsruhe	Group holding	July 2, 2021	100	0
GeoThermal Engineering GmbH (renamed to Vulcan Energy Subsurface Solutions GmbH)	Karlsruhe	Operating entity	July 2, 2021	100	0
Gec-co Global Engineering and Consulting-Company GmbH (renamed to Vulcan Energy Engineering GmbH)	Augsburg	Operating entity	July 2, 2021	100	0
Vulcan Geothermal GmbH	Karlsruhe	Group holding	July 09, 2021	100	0
VER GEO LIO GmbH	Karlsruhe	Group holding	July 12, 2021	100	0
Vercana GmbH	Karlsruhe	Operating entity	December 09, 2021	100	0
Natürlich Insheim GmbH	Karlsruhe (previously: Ludwigshafen)	Operating entity	December 31, 2021	100	0
Koppar Resources Europe Pty Limited (renamed to Kuniko Limited)	Perth	Operating entity	May 24, 2017	0	100
Vulcan Energy Europe Pty Limited	Perth	Operating entity	October 11,2019	100	100

Vulcan Energie Ressourcen GmbH	Karlsruhe	Operating entity	September 26, 2019	100	100
Vulcan Italy Limited	Perth	Operating entity	July 5, 2021	100	0

NOTE 26 BUSINESS COMBINATIONS

Natürlich Insheim GmbH (previously: Pfalzwerke Geofuture GmbH)

VER GEO LIO GmbH, an indirect subsidiary of Vulcan Energy Resources Limited, acquired 100% shares in Natürlich Insheim GmbH ('**Natürlich Insheim**'), in accordance with the Share Purchase Agreement, with an effective date on 31 December 2021 (closing-date).

The preliminary purchase price for the acquisition of Natürlich Insheim amounted to €32,684,814 and was paid in cash. The preliminary purchase price has been adjusted by €1,410,417 based on the purchase price adjustments stated in the Share Purchase Agreement. Therefore, the adjusted purchase price amounts to €31,274,397 and is now final.

The acquired business contributed revenues of €2,976,987 and a loss after tax of €105,243 to the consolidated entity for the period 1 January 2022 to 30 June 2022. If the acquisition occurred on 1 July 2021 the full year contributions would have been revenues of €5,953,974, a loss after tax of €210,486 and EBITDA of €1,352,836.

Natürlich Insheim owns and operates a geothermal power plant in Insheim, Germany.

The values identified in relation to the acquisition of Insheim are final as at 30 June 2022.

Details of the acquisition are as follows:

	€'000
Cash	922
Trade and other receivables	754
Inventory	138
Property, plant & equipment	28,313
Deferred tax asset	1,747
Trade and other payables	(894)
Other provisions	(50)
Fair value of net assets acquired	30,930
Goodwill	35
Operating permit	1,500
Intangibles acquired on acquisition	1,535
Deferred tax liabilities arising on acquisition	(1,191)
Acquisition-date fair value of total consideration	31,274
Representing:	
	€'000
Cash paid	32,685
Loan repayment to Pfalzwerke Geofuture GmbH	(1,300)
Profit transfer adjustment	(111)
Total consideration	31,274

Gec-co Global Engineering & Consulting-Company GmbH

Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of geothermal surface consultancy company, Global Engineering and Consulting - Company GmbH ('**Gec-co**'), in accordance with the Share Purchase Agreement, with an effective date on 2 July 2021

(closing-date). Mr Thorsten Weimann, Chief Operating Officer of Vulcan Energy Resources Limited is the sole shareholder of Gec-co.

325,000 fully paid ordinary shares of Vulcan Energy Resources Limited were issued, totalling to €1,627,720 based on a share price at closing date of €5.01 (AUD7.93).

This is an engineering business and operates in the renewables sector. The goodwill of €1.040m represents the expected synergies from merging this business with the other entities and reducing external consultancy costs. The acquired business contributed revenues (including other own works capitalised) of €2,979,154 for sale of services and loss after tax of €900,073 to the consolidated entity for the period from 2 July 2021 to 30 June 2022. As the acquisition occurred on 2 July 2022, the full year contribution is the same as above.

Additionally, a cash payment of €862,750 linked to project development milestones of the Vulcan Zero Carbon Lithium™ Project has been recognised as deferred consideration, based on management's assessment of the probability of achieving the milestones. Milestones as follows:

- (a) The first building permit for the construction of an ORC (geothermal) plant is granted;
- (b) The first building permit or approval pursuant to the German Federal Immission Control Act (BImSchG) for the construction of a DLE (lithium extraction) plant is granted.

The values identified in relation to the acquisition of Gec-co are final as at 30 June 2022.

Details of the acquisition are as follows:

	€'000
Cash	246
Trade and other receivables	557
Contract assets	192
Other assets	122
Trade and other payables	(372)
Loans and borrowings	(348)
Fair value of net assets acquired	397
Customer relationships	1,393
Order backlog	46
Goodwill	1,040
Intangibles acquired on acquisition	2,479
Deferred tax liabilities arising on acquisition	(386)
Acquisition-date fair value of total consideration	2,490
Representing:	
	€'000
Shares issued	1,628
Deferred consideration	862
Total consideration	2,490

GeoThermal Engineering GmbH

Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of the shares in GeoThermal Engineering GmbH ('GeoT') in accordance with the Share Purchase Agreement, with effective date on 2 July 2021 (closing-date). Dr Horst Kreuter, CEO of Vulcan Energie Ressourcen GmbH, and a related party of Vulcan Energy Resources Limited, was the sole shareholder of GeoT.

The acquisition costs for 100% of the shares in GeoT were payable in cash. The agreed purchase price was €1.

GeoT is an independent planning and consulting company for the development of deep geothermal projects worldwide. In cooperation with partners and investors, GeoT develops national and international projects in regions that offer favourable conditions for a sustainable heat and/or power production from geothermal energy. Furthermore, GeoT designs optimally adapted exploration programs for each project by individual composing of the different exploration methods.

The acquired business contributed revenues (including other own work capitalised) of €1,469,495 for sale of services and loss after tax of of €263,250 to the consolidated entity for the period from 2 July 2021 to 30 June 2022. As the acquisition occurred on 2 July 2022, the full year contribution is the same as above.

The values identified in relation to the acquisition of GeoT are final as at 30 June 2022.

Details of the acquisition are as follows:

	€
Cash	62,150
Trade and other receivables	151,854
Other assets	134,223
Trade and other payables	(156,342)
Loans and borrowings	(285,330)
Fair value of net liabilities acquired	(93,445)
Customer relationships	133,316
Goodwill	1,298
Intangibles acquired on acquisition	134,614
Deferred tax liabilities arising on acquisition	(41,168)
Acquisition-date fair value of total consideration	1
Representing:	€
Cash paid or payable to vendor	1
Total consideration	1

Accounting policy

Business combinations

The acquisition method of accounting is used to account for business combinations regardless of whether equity instruments or other assets are acquired.

The consideration transferred is the sum of the acquisition-date fair values of the assets transferred, equity instruments issued or liabilities incurred by the acquirer to former owners of the acquiree and the amount of any non-controlling interest in the acquiree. For each business combination, the non-controlling interest in the acquiree is measured at either fair value or at the proportionate share of the acquiree's identifiable net assets. All acquisition costs are expensed as incurred to profit or loss.

On the acquisition of a business, the consolidated entity assesses the financial assets acquired and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic conditions, the consolidated entity's operating or accounting policies and other pertinent conditions in existence at the acquisition-date.

Where the business combination is achieved in stages, the consolidated entity remeasures its previously held equity interest in the acquiree at the acquisition-date fair value and the difference between the fair value and the previous carrying amount is recognised in profit or loss.

Contingent consideration to be transferred by the acquirer is recognised at the acquisition-date fair value. Subsequent changes in the fair value of the contingent consideration classified as an asset or liability is recognised in profit or loss. Contingent consideration classified as equity is not remeasured and its subsequent settlement is accounted for within equity.

The difference between the acquisition-date fair value of assets acquired, liabilities assumed and any noncontrolling interest in the acquiree and the fair value of the consideration transferred and the fair value of any pre-existing investment in the acquiree is recognised as goodwill. If the consideration transferred and the preexisting fair value is less than the fair value of the identifiable net assets acquired, being a bargain purchase to the acquirer, the difference is recognised as a gain directly in profit or loss by the acquirer on the acquisition date, but only after a reassessment of the identification and measurement of the net assets acquired, the noncontrolling interest in the acquiree, if any, the consideration transferred and the acquirer's previously held equity interest in the acquiree.

NOTE 27 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk and interest rate risk), credit risk, liquidity risk and price risk. The Group's overall risk management programme focuses on the unpredictability of the financial markets and seeks to minimise potential adverse effects on the financial performance of the Group. The Group uses different methods to measure and manage different types of risks to which it is exposed.

These include monitoring levels of exposure to interest rate and foreign exchange risk and assessments of market forecasts for interest rate and foreign exchange prices. Ageing analysis and monitoring of specific credit allowances are undertaken to manage credit risk. Liquidity risk is monitored through the development of future cash flow forecasts.

Risk management is carried out by Management and overseen by the Board of Directors with assistance from suitably qualified external advisors.

The main risks arising for the Group are foreign exchange risk, interest rate risk, credit risk and liquidity risk. The Board reviews and agrees policies for managing each of these risks and they are summarised below.

The carrying values of the Group's financial instruments are as follows:

	2022 €'000	2021 €'000
Financial Assets		
Cash and cash equivalents	175,416	72,494
Trade and other receivables	4,030	757
	<u>179,446</u>	<u>73,251</u>
Financial Liabilities		
Trade and other payables	8,354	1,335
Lease liabilities	3,005	353
	<u>11,359</u>	<u>1,688</u>

(a) Market risk

(i) Foreign exchange risk

The Group's exposure to foreign currency risk at the end of the reporting period, expressed in Euro, was as follows:

	2022 €'000	2021 €'000
Trade payables	(2,427)	(1,051)
Other payables	(54)	(55)
	<u>(2,481)</u>	<u>(1,106)</u>

The aggregate net foreign exchange gains/losses recognised in the P&L were:

	2022 €'000	2021 €'000
Net foreign exchange gains recognised in the P&L were (in Euro):	285	48

Sensitivity

As shown in the table above, the group is primarily exposed to changes in EUR/AUD exchange rates. The sensitivity of profit or loss to changes in the exchange rates is:

	Impact on post-tax profit 2022 €'000	2021 €'000
EUR/AUD exchange rate - increase 10% (2020 -10%)*	(215)	7
EUR/AUD exchange rate - decrease 10% (2020 -10%)*	215	(8)
*Holding all other variables constant		

(ii) *Interest rate risk*

The Group is exposed to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in the market interest rates on interest bearing financial instruments. The Group's exposure to this risk relates primarily to the Group's cash and any cash on deposit. The Group does not use derivatives to mitigate these exposures. The Group manages its exposure to interest rate risk by holding certain amounts of cash in fixed and floating interest rate facilities. At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was:

	2022	2021
	Weighted average interest rate	Weighted average interest rate
	Balance	Balance
	€'000	€'000
Cash and cash equivalents	0.25% 103,558	0.23% 72,494

Sensitivity

Within the analysis, consideration is given to potential renewals of existing positions and the mix of fixed and variable interest rates. The following sensitivity analysis is based on the interest rate risk exposures in existence at the reporting date. The 1% increase and 1% decrease in rates is based on reasonably expected possible changes over a financial year.

At 30 June 2022, if interest rates had moved, as illustrated in the table below, with all other variables held constant, losses and equity would have been affected as follows:

	Profit higher/(lower) 2022 €	Profit higher/(lower) 2021 €
+ 1.0% (100 basis points)	1,035,576	724,941
- 1.0% (100 basis points)	(1,035,576)	(724,941)

(b) **Credit risk**

Credit risk arises from the financial assets of the Group, which comprise cash and cash equivalents, trade and other receivables and other financial assets. The Group's exposure to credit risk arises from potential default of the counterparty, with maximum exposure equal to the carrying amount of the financial assets.

The Group's policy is to trade only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms will be subject to credit verification procedures.

In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant. There are no significant concentrations of credit risk within the Group except for cash and cash equivalents.

(c) **Liquidity risk**

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation.

The Group manages liquidity risk by maintaining adequate cash reserves from funds raised in the market and by continuously monitoring forecast and actual cash flows. The Group does not have any external borrowings.

The following are the contractual maturities of financial liabilities:

2022	1 year or less €	1-5 years €	> 5 years €	Total €
Trade and other payables	8,354,088	-	-	8,354,088
Lease Liabilities	438,902	837,649	1,727,910	3,004,461
2021				
Trade and other payables	1,335,425	-	-	1,335,425
Lease Liabilities	39,430	179,025	134,793	353,248

(d) **Price risk.**

The Group is exposed to the commodity price risk, as its energy sales are predominantly subject to prevailing market prices. The contract with Pfalzwerke guarantees a minimum price of €0.25 per kWh. During the financial year ending 30 June 2022 Vulcan sold 11,908 MWh at an average price of €0.25 per kWh. In a full year of trading 23,000 MWh is expected.

At 50per cent of the upward movement in the price for Mwh, the Group's loss would decrease by €1.9m. At 100 per cent upward price movement the loss would decrease by €3.8m.

(e) **Capital risk management.**

The Group's objectives when managing capital are to:

- Safeguard their ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders; and
- Maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the number of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Given the stage of the Company's development there are no formal targets set for return on capital. The Company is not subject to externally imposed capital requirements. The net equity of the Company is equivalent to capital. Net capital is obtained through capital raisings on the Australian Securities Exchange ("ASX").

NOTE 28 CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

	Lease liability €'000	Total €'000
Balance at 1 July 2020	-	-
Net cash used in financing activities	(14)	(14)
Additions to leases	367	367
Balance at 30 June 2021	353	353
Balance at 1 July 2021	353	353
Net cash used in financing activities	(185)	(185)
Additions to leases	3,190	3,190
Other changes	(353)	(353)
Balance at 30 June 2022	3,005	3,005

NOTE 29 NON-CASH INVESTING AND FINANCING ACTIVITIES

	2022 €'000	2021 €'000
Additions to the right of use assets	3,190	372
Performance shares issued for consideration of acquisition (note 24)	363	-
Shares issued for consideration of acquisition (note 26), (note 24)	1,685	-
	5,238	372

NOTE 30 SHARE-BASED PAYMENTS

	2022 €'000	2021 €'000
Recognised share-based payment transactions		
Performance rights issued to Directors, staff and consultants (i)	520	2,767
Performance rights issued to Directors & staff in prior periods (ii)	2,769	228
Performance shares issued to Vendors of Acquisition (iii)	218	471
Performance shares issued as consideration for acquisition of subsidiary GGH	363	-
Shares issued for consideration of services	478	213
Shares issued to Director	-	149

Warrants (iv)	130	234
Unlisted Options	-	231
Shares issued to Introducers of Acquisition (Note 13)	-	3,627
	<u>4,478</u>	<u>7,920</u>

	2022 €'000	2021 €'000
Represented by		
Shared-based payment expense	3,637	4,080
Investor relations expense	478	213
Introducer fee	-	-
Capitalised exploration assets (Note 13)	363	3,627
	<u>4,478</u>	<u>7,920</u>

(i) *Details of new performance rights issued during the year:*

On 16 December 2021, the company issued 204,000 performance rights to Chief Financial Officer in Germany, Company Secretary and Communications Manager to align their interests to that of the Company's shareholders and assist as an effective means of retaining staff.

Type	Fair value of each right (EUR)	Grant date	Price at grant date (EUR)	Expiry date	Number of rights	Total value of rights (EUR)	Share based payment expense (EUR)
Class P	7.54	16/12/2021	7.54	1/12/2023	58,000	437,320	183,258
Class T	7.54	16/12/2021	7.54	1/12/2024	18,000	135,720	60,428
Class V	7.54	16/12/2021	7.54	1/12/2024	18,000	135,720	21,242
Class Y	7.54	16/12/2021	7.54	1/12/2024	60,000	452,400	211,881
Class Z	7.54	16/12/2021	7.54	1/12/2024	50,000	377,000	43,039
						Total	519,848

NOTE 30 SHARE-BASED PAYMENTS (CONT.)

Details of performance rights vesting conditions:

Class P:

The Company announcing before 31 December 2022 a positive definitive Feasibility Study in relation to Project confirming it is commercially viable with and expiry date of 1 December 2023.

Class T:

The Company being issued a building permit for the first geothermal power plant or, in the case of pure heating project with no electricity production, the transfer station, on or before the Expiry Date of 1 December 2024.

Class V:

The Company is being granted a permit according to BlmSchG for the first lithium refinery, on or before the Expiry Date 1 December 2024.

Class Y:

The Company announcing successful listing of Vulcan Energy on the regulated market of the Frankfurt Stock Exchange on or before the expiry date of 1 December 2024.

Class Z:

Performance Rights will vest upon the Company obtaining project finance for the first commercial plant, on or before the Expiry Date of 1 December 2024.

(i) *Details of performance rights issued in prior years:*

Type	Fair value of each right (EUR)	Expected volatility	Grant date	Price at grant date (EUR)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of Rights	Total value of Rights (EUR)	Share based payment expense (EUR)
Class F	0.09	N/A	4/09/2019	0.09	4/09/2022	N/A	N/A	1,250,000	116,213	62,139
Class I	0.13	N/A	14/05/2020	0.13	1/12/2023	N/A	N/A	500,000	66,983	50,673
Class I	0.65 & 0.55	N/A	11/9/2020 & 15/9/2020	0.65 & 0.55	1/12/2023	N/A	N/A	250,000 & 250,000	300,000	239,375
Class J	0.55	70%	10/09/2020	0.55	16/09/2023	1.84	0.26%	2,500,000	1,368,598	294,717
Class L	0.55	70%	10/09/2020	0.55	16/09/2023	1.64	0.26%	1,000,000	547,439	311,237
Class N	0.55	N/A	10/09/2020	0.55	1/12/2023	N/A	N/A	1,500,000	821,159	533,658
Class P	0.55 & 4.67	N/A	15/09/2020 & 29/06/2021	0.55 & 4.67	1/12/2023	N/A	N/A	250,000 & 60,000	417,700	216,541
Class Q	1.47	N/A	25/11/2020	1.47	27/11/2021	N/A	N/A	100,000	147,060	62,646
Class R	1.47	N/A	25/11/2020	1.47	27/11/2022	N/A	N/A	100,000	147,060	76,428
Class S	4.95	N/A	24/06/2021	4.95	30/06/2025	N/A	N/A	38,688	191,561	117,679
Class T	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	250,000	1,205,360	303,555
Class U	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	250,000	1,205,360	285,706
Class V	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	100,000	482,144	121,423
Class W	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	100,000	482,144	92,881
									Total	2,768,658

Details of Performance Rights vesting conditions:

Class F

- Vest immediately and will convert into shares on the Company announcing that it has secured either an offtake agreement representing a minimum of 30% of production volume over a three-year term, or a downstream joint venture partner with a minimum EUR 6,000,000 investment in relation to the Vulcan Lithium Project within 36 months of completion of the Acquisition.

Class I

- Will vest upon the Company announcing that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum EUR 6,000,000 investment in relation to the Vulcan Lithium Project within three years of issue of the Performance Rights, with an expiry date of 1 December 2023.

Class J

- the Company announcing, within 36 months from the date of issue, a positive (JORC-Compliant) Definitive Feasibility Study in relation to the Project confirming it is commercially viable; and
- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 225% of the VWAP for Shares for the last 5 trading days up to but not including the date of the Meeting (the Reference Price).

Class L

- the Company announcing, within 36 months from the date of issue, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of EUR 6,000,000 investment in relation to the Project; and
- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 200% of the Reference Price.

Class H

- the Company announcing, on or before 18 May 2022, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable.

Class N

- the Company announcing, on or before 21 May 2022, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of EUR 6,000,000 investment in relation to the Project.

Class P

- the Company announcing before 31 December 2022 a positive Definitive Feasibility Study in relation to the Project confirming it is commercially viable.

Class Q

- Vesting on issue and converting to shares on a one for one basis on the date that is 12 months from the date of issue.

Class R

- Vesting on issue and converting to shares on a one for one basis on the date that is 24 months from the date of issue.

Class S

- one third vesting 12 months from the date of the 24 June 2021 General Meeting (EGM), one third vesting 24 months from EGM, one third vesting 36 months from EGM.

Class T

- the Company being issued a building permit for the first geothermal power plant or, in the case of a pure heating project with no electricity production, the transfer station, on or before the Expiry Date of 1st December 2024;

Class U

- the Company being issued a building permit for the first Direct Lithium Extraction system, on or before the Expiry Date of 1st December 2024.

Class V

- the Company being granted a permit according to BImSchG for the first lithium refinery, on or before the Expiry Date of 1st December 2024;

Class W

- the Company announcing commissioning of the first commercial lithium extraction plant, on or before the Expiry Date of 1st December 2024;

Class G

- Will vest upon the holder completing six months continuous employment with the Company, with an expiry date of 1 December 2023.

(ii) *Details of performance shares issued in prior years:*

Type	Fair value of each PS (EUR)	Expected volatility	Grant date	Price at grant date (EUR)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of PS	Total value of PS (EUR)	Share based payment expense (EUR)
Class A *	0.09	N/A	4/09/2019	0.09	4/09/2020	N/A	N/A	4,400,000	396,000	-
Class B *	0.09	N/A	4/09/2019	0.09	4/09/2021	N/A	N/A	4,400,000	396,000	-
Class C	0.09	N/A	4/09/2019	0.09	4/09/2022	N/A	N/A	4,400,000	396,000	218,727

*Class A and B has no share-based payment expense for the year due to performance shares vested in the prior year.

All performance shares listed above have been exercised as at 30 June 2022

Details of Performance Shares vesting conditions:

On 4 September 2019, the Company issued 13,200,000 Performance Shares (PS) issued to Vendors of the Vulcan Lithium Project Acquisition which will each convert into a Share on a one for one basis on the satisfaction of milestones. Based on management assessment, percentage of a share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income.

(iii) *Details of warrants issued in prior years:*

On 10 September 2020, 25 November 2020, and 24 June 2021, shareholder approval was obtained to issue total of 521,304 warrants to EIT InnoEnergy. On 16 September 2020, and on 8 January 2021, the Company issued 479,519 and 32,928 warrants respectively, with 8,857 warrants issued on 9 August 2021. All warrants were exercised during the year. These warrants were valued using a Black-Scholes valuation, with the valuation model inputs used to determine the fair value at grant date as follows:

Grant Date	10/09/2020	25/11/2020	24/06/2021
Expiry Date	16/09/2023	8/01/2023	9/08/2024
Share price at grant date (EUR)	0.55	1.53	5.01
Exercise Price	0.00	0.00	0.00
Number of warrants	479,519	32,928	8,857
Fair value at grant date (EUR)	0.55	1.53	5.01
Expected volatility	70%	70%	70%
Risk free rate	0.26%	0.11%	0.20%
Total value (EUR)	265,495	50,352	44,361
Balance at the end of the year (No.)	-	-	-
Share based payment expense (EUR)	49,662	38,812	41,086

All warrants have been exercised as at 30 June 2022.

Set out below are summaries of performance rights granted and exercised:

	As at 1 July 2021	Granted	Exercised	As at 30 June 2022
Class F	1,250,000	-	(1,250,000)	-
Class G	250,000	-	-	250,000
Class H	990,000	-	(436,364)	553,636
Class I	1,000,000	-	-	1,000,000
Class J	2,500,000	-	-	2,500,000
Class K	-	-	-	-
Class L	1,000,000	-	(1,000,000)	-
Class M	1,500,000	-	-	1,500,000
Class N	1,500,000	-	-	1,500,000
Class P	310,000	58,000	-	368,000
Class Q	100,000	-	(100,000)	-
Class R	100,000	-	-	100,000
Class S	38,688	-	-	38,688
Class T	250,000	18,000	-	268,000
Class U	250,000	-	-	250,000
Class V	100,000	18,000	-	118,000
Class W	100,000	-	-	100,000
Class Y	-	60,000	-	60,000
Class Z	-	50,000	-	50,000
	11,238,688	204,000	(2,786,364)	8,656,324

Set out below are summaries of performance rights granted and exercised

	As at 1 July 2020	Granted	Exercised	As at 30 June 2021
Class A	-	-	--	-
Class B	500,000	-	(500,000)	-
Class C	-	-	-	-
Class D	-	-	-	-
Class E	1,250,000	-	(1,250,000)	-
Class F	1,250,000	-	-	1,250,000
Class G	250,000	-	-	250,000
Class H	500,000	750,000	(260,000)	990,000
Class I	500,000	500,000	-	1,000,000
Class J	-	2,500,000	-	2,500,000
Class K	-	1,000,000	(1,000,000)	-
Class L	-	1,000,000	-	1,000,000
Class M	-	1,500,000	-	1,500,000
Class N	-	1,500,000	-	1,500,000
Class P	-	310,000	-	310,000
Class Q	-	100,000	-	100,000
Class R	-	100,000	-	100,000
Class S	-	38,688	-	38,688
Class T	-	250,000	-	250,000
Class U	-	250,000	-	250,000
Class V	-	100,000	-	100,000
Class W	-	100,000	-	100,000
	4,250,000	9,998,688	(3,010,000)	11,238,688

Accounting Policy

Share-based payments

Equity-settled and cash-settled share-based compensation benefits are provided to Key Management Personnel and employees.

Equity-settled transactions are awards of shares, or options over shares, which are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using an appropriate valuation model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the consolidated entity receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions are recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest and the expired portion of the vesting period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying an appropriate valuation model, taking into consideration the terms and conditions on

which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- (a) During the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- (b) From the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore, any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the consolidated entity or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the consolidated entity or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

NOTE 31 RELATED PARTY DISCLOSURE

Parent

entity

Vulcan Energy Resources Limited is the parent entity.

Subsidiaries

Interests in subsidiaries are set out in note 25.

Associates

Interests in associates are set out in note 23.

(a) Key Management Personnel Compensation

The aggregate compensation made to directors and other members of key management personnel of the consolidated entity is set out below.

	2022	2021
	€	€
Short-term benefits	1,240,462	704,063
Post-employment benefits	45,206	32,698
Share-based payments	1,655,046	2,515,034
	<u>2,940,714</u>	<u>3,251,795</u>

(b) Transactions with associates

Loans to or from associates

During the financial year Kuniko Limited repaid the loan of €409,000 to Vulcan Resources Limited. There were no loans to or from associates at 30 June 2022 (30 June 2021: €409,000).

(c) **Transactions with related parties**

During the financial year payments for consultancy fees of €52,834 (2021: €26,946) were made to Alto Group Inc., a related party of Ms Annie Liu. There was no outstanding balance as at 30 June 2022 (2021 €11,056).

During the financial year payments for consultancy fees of €33,968 were made to JRB Consulting Ltd., a related party of Ms Josephine Bush in respect of a Board mandated review of the Company's Target Operating Model and ESG reporting. There was no outstanding balance as at 30 June 2022 (2021 €Nil).

On 6 July 2021, the Company issued 5,698 shares and 45,587 performance shares to Dr Horst Kreuter for the security consideration for the acquisition of Global Geothermal Holding UG (a company incorporated under the laws of Germany) following shareholder approval at an EGM held in June 2021. Dr Kreuter is a shareholder of Global Geothermal Holding UG.

The Company also completed the acquisition of GeoThermal Engineering GmbH (GeoT) on 2 July 2021 for €1. Dr Kreuter is the sole shareholder of GeoT. Dr. Kreuter will also receive 50% of any payments received from certain debtors to GeoT, if these payments are made to GeoT within 18 months of completion of the acquisition. GeoT also repaid debt of approximately €140,000 (plus a nominal amount of interest) to Dr. Kreuter as part of completion of the acquisition during the financial year.

During the previous financial year, payments for corporate advisory services outside of Australia of €28,170 were made to Viaticus Capital, a related party of Mr Rezos. Viaticus Capital also received fees of €30,834 for capital raising fees associated with a placement undertaken in year ending 30 June 2021. The outstanding balance to Viaticus Capital at 30 June 2021 was €43,504. The corporate advisory services agreement with Viaticus Capital entered into in 2018 was amended by mutual agreement during the reporting period to exclude any capital raising, M&A or related services

During the previous financial year Dr Kreuter was CEO of GeoThermal Engineering GmbH (GeoT). GeoThermal Engineering GmbH provides engineering services to Vulcan Energie Ressourcen GmbH, wholly sub of the Vulcan Energy Resources Ltd. During the last financial year, GeoThermal Engineering received €736,609 from Vulcan Energie Ressourcen GmbH. There were no amounts outstanding at 30 June 2021 (2020: nil).

Loans to/from related parties

There were no loans to or from related parties at the 30 June 2022 (30 June 2021: nil).

Other than the above, there were no other transactions with related parties during the year ended 30 June 2022.

Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

NOTE 32 COMMITMENTS

Below are the commitments in relation to its exploration and evaluation assets:

	2022 €'000	2021 €'000
Within one year	3,422	1,005
One to five years	6,293	1,362
	<u>9,715</u>	<u>2,367</u>

The Company is also subject to capital commitments to the value of €18.362m (2021: €nil) relating to capital commitments within 1 year and €3.6m (2021: €nil) 1 year but less than 5 years (2021: €nil).

NOTE 33 CONTINGENCIES

The Group has no contingent assets and liabilities as at 30 June 2022.

In the last financial year, as part of the acquisition of Vulcan Lithium Project, the Company agrees to pay the following by way of deferred consideration of remaining 4,400,000 (13,200,000 less 8,800,000) Performance Shares to be issued to the Vendors, which will each convert into a Share on a one for one basis on satisfaction the following milestones: (i.) 4,400,000 Shares on the Company announcing that it has secured an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within 36 months of completion of the Acquisition (Milestone 3), (together, the Deferred Consideration). Other than the above, there are no other contingent assets or contingent liabilities as at 30 June 2021

NOTE 34 AUDITOR'S REMUNERATION

	2022 €'000	2021 €'000
Amounts received or due and receivable by RSM Australia Partners for: Audit or review of the annual financial report	197	59
Other services - RSM Australia Pty Ltd for:		
– Corporate Finance	-	2
– Comfort letter in relation to listing prospectus	-	-
	<u>276</u>	<u>61</u>

NOTE 35 ACCUMULATED LOSSES

	2022 €'000	2021 €'000
Balance at beginning of the year	(9,571)	(2,845)
Loss after income tax for the year	(18,851)	(6,726)
Balance at end of the year	<u>(28,422)</u>	<u>(9,571)</u>

NOTE 36 PARENT ENTITY

	2022 €'000	2021 €'000
Statement of Financial Position		
ASSETS		
Current Assets	117,542	72,426
Non-Current Assets	133,308	9,473
Total Assets	<u>250,850</u>	<u>81,899</u>
LIABILITIES		
Current Liabilities	3,527	381
Total Liabilities	<u>3,527</u>	<u>381</u>
EQUITY		
Issued Capital	258,933	86,268
Reserves	19,689	5,070
Accumulated losses	(31,299)	(9,820)
Total Equity	<u>247,323</u>	<u>81,518</u>
Statement of Profit or Loss and other comprehensive income		
Loss for the year	(21,479)	(6,789)
Total Comprehensive Loss	<u>(21,479)</u>	<u>(6,789)</u>

Contingent liabilities

Other than disclosed at Note 22, the parent entity has no other contingent assets or contingent liabilities as at 30 June 2021 and 30 June 2022.

Capital commitments - Property, plant and equipment

The parent entity had no capital commitments for property, plant and equipment as at 30 June 2021 and 30 June 2022.

Exploration commitments

The parent entity has no exploration commitments.

Significant accounting policies

The accounting policies of the parent entity are consistent with those of the consolidated entity, as disclosed in the financial statements, except for the following:

- (i.) Investments in subsidiaries are accounted for at cost, less any impairment, in the parent entity.

NOTE 37 DIVIDENDS

No dividend has been declared or paid during the year ended 30 June 2022 (30 June 2021:nil), and the Directors do not recommend the payment of a dividend in respect of the year ended 30 June 2022

Accounting Policy

Dividends

Dividends are recognised when declared during the financial period and no longer at the discretion of the Company.

NOTE 38 EVENTS AFTER THE REPORTING DATE

- On 7 July 2022, the Company issued 241,252 ordinary shares, comprising:
 - 182,897 ordinary shares, being a conversion of performance rights, which was part of remuneration for services provided.
 - 58,355 ordinary shares, being the share consideration via Partnership Agreement VUL as Official Partner of Rosberg X Racing, obtaining global exposure of its Zero Carbon Lithium brand & business through advertising & promo space via RXR team.
- On 8 July 2022, Vulcan and Enel Green Power (EGP) signed a binding collaboration agreement to explore and develop its Cesano license in Italy through a joint scoping study. Both companies also agreed to evaluate the opportunity to cooperate on other geothermal lithium projects in Italy. The Cesano license area will become co-owned 50:50 by Vulcan and EGP.
- On 8 July 2022, Vulcan announced it received a positive result for its preliminary EIA application (UVP-V) in its Taro license, to drill six wells for geothermal energy and lithium.
- On 26 July 2022, Vulcan was granted a new exploration license, designated Ried, increasing the Company's license area in the Upper Rhine Valley Brine Field (URVBF) by 277km² to a total of 1,440km².
- On 26 September 2022 Vulcan announced the appointment of Cris Moreno as Deputy Chief Executive Officer (Deputy CEO), effective from 1 November, 2022. Mr. Moreno is an energy and chemicals industry executive with over 20 years' experience in successfully delivering major capital projects, including in the lithium chemicals, cathode and LNG sectors. His technical background is chemical and process engineering.

Apart from the above, no other matter or circumstance has arisen since 30 June 2022 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

In the Directors' opinion:

- (a) The financial statements and accompanying notes are in accordance with the Corporations Act 2001, including:
 - (i) complying with Australian Accounting Standards, the Corporations Regulations 2001 and other mandatory professional reporting requirements; and
 - (ii) giving a true and fair view of the consolidated entity's financial position as at 30 June 2022 and of its performance for the financial year ended on that date.
- (b) The financial statements and notes comply with International Financial Reporting Standards.
- (c) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The Directors have been given the declarations required by section 295A of the Corporations Act 2001.

This declaration is made in accordance with a resolution of the Board of Directors made pursuant to section 295(5)(a) of the Corporations Act 2001 and is signed for and on behalf of the Directors by:

Gavin Rezos

Chairman

28 September 2022

17.4.6 Independent Auditor's Report

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF VULCAN ENERGY RESOURCES LIMITED

We have audited the financial report of Vulcan Energy Resources Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 30 June 2022, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- (i) Giving a true and fair view of the Group's financial position as at 30 June 2022 and of its financial performance for the year then ended; and
- (ii) Complying with Australian Accounting Standards and the Corporations Regulations 2001. Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report. We are independent of the Group in accordance with the auditor independence requirements of the Corporations Act 2001 and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the Corporations Act 2001, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit Matter	How our audit addressed this matter
Exploration and Evaluation Expenditure- Refer to Note 13 in the financial statements	
The Group has capitalised exploration and evaluation expenditure with a carrying value of €20,440,000 as at 30 June 2022. We considered this to be a key audit matter due to the significant management judgments involved in assessing the carrying value of the asset including: Determination of whether the exploration and evaluation expenditure can be associated with finding specific	Our audit procedures included: - Assessing the Group's accounting policy for compliance with accounting standards; - Testing that the right to tenure of each relevant area of interest is current; - Testing a sample of additions to supporting documentation and ensuring the amounts are capitalised during the year are in compliance the

Key Audit Matter	How our audit addressed this matter
mineral resources and the basis on which that expenditure is allocated to an area of interest; - Assessing whether exploration activities have reached a stage at which the existence of economically recoverable reserves may be determined; and - Assessing whether any indicators of impairment are present and if so, judgement applied to determine and quantify any impairment loss.	Group's accounting policy and relate to the area of interest; - Enquiring with management and reading budgets and other documentation as evidence that active and significant operations in, or relation to, the area of interest will be continued in the future; - Assessing and evaluating management's determination that exploration activities have not yet progressed to the stage where the existence or otherwise of economically recoverable reserves may be determined; - Assessing and evaluating management's assessment of whether indicators of impairment existed at the reporting date; and - Assessing the appropriateness of disclosures in the financial statements.
Share-based payments - Refer to Note 22 and 30 in the financial statements	
During the year, the Group issued performance rights, performance shares and shares to key management personnel, employees, consultants and vendors. Management have accounted for these instruments in accordance with AASB 2 Share-Based Payments. We have considered this to be a key audit matter because: - The complexity of the accounting associated with recording these instruments and management estimation in determining the fair value of instruments granted; - Management judgement is required to determine the probability of vesting conditions of these instruments and the inputs used in the valuation model to value these instruments; and - The recognition of the share-based payment expense is complex due to the variety of vesting conditions attached to these instruments.	Our audit procedures included: - Assessing the Group's accounting policy for compliance with accounting standards; - Obtaining an understanding of the terms and conditions of these instruments issued; - Assessing the completeness of the instruments issued at reporting date; - Assessing the appropriateness of management's valuation methodology; - Testing the key inputs used for each instrument issued in the valuation model; - Critically assessing management's determination of the vesting probability of each instrument; - Recalculating the value of the share-based payment expense to be recognised in consolidated statement

Key Audit Matter	How our audit addressed this matter
	of profit or loss and other comprehensive income; and Assessing the appropriateness of disclosures in the financial statements.
Business Combinations – Acquisition of Naturlich Insheim GmbH and Gec-co Global Engineering & Consulting-Company GmbH- Refer to Note 26 in the financial statements	
During the year, the Group completed several Acquisitions of subsidiaries. The most significant acquisitions were related to the acquisition of Naturlich Insheim GmbH and Gec-co Global Engineering & Consulting-Company GmbH. The transactions have been accounted for as a business combination in accordance with AASB 3 <i>Business Combinations</i>. We have considered this to be a key audit matter Because the accounting for the transactions is complex and involves significant judgments. These include the recognition and valuation of consideration paid, determination of the acquisition date and the fair value of the assets and liabilities acquired.	Our audit procedures included: - Assessing the Group's accounting policy for compliance with accounting standards; - Reading the purchase agreements and other associated documents to obtain an understanding of the transactions; - Assessing the appropriateness of management's Determination that the acquisitions met the Definition of a business in accordance with accounting standards; - Assessing management's determination of the acquisition date and fair value of consideration paid; - Assessing the reasonableness of management's determination of the fair value of identifiable assets and liabilities acquired; - Checking the mathematical accuracy of the computation of goodwill arising on acquisition; and - Assessing the disclosures in the financial statements.

Other Information

The directors are responsible for the other information. The other information comprises the information included in the Group's annual report for the year ended 30 June 2022 but does not include the financial report and the auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: https://www.auasb.gov.au/admin/file/content102/c3/ar1_2020.pdf This description forms part of our auditor's report.

Report on the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in the directors' report for the year ended 30 June 2022.

In our opinion, the Remuneration Report of Vulcan Energy Resources Limited, for the year ended 30 June 2022, complies with section 300A of the Corporations Act 2001.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

RSM AUSTRALIA PARTNERS

Perth, WA

AIK KONG TING

Dated: 28 September 2022

Partner

17.5 Consolidated Annual Financial Statements 2021

17.5.1 Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the Financial Year Ended 30 June 2021

	Note	2021 \$	2020 \$
Revenue from continuing operations			
Other income	4	631,542	95,342
Expenses			
Administrative expenses	5(a)	(888,145)	(320,920)
Compliance and regulatory expenses		(551,639)	(98,906)
Consulting and legal fees	5(b)	(1,922,771)	(424,603)
Depreciation		(131,522)	-
Employee benefit expenses		(624,829)	(234,551)
Investor relations		(410,338)	(314,510)
Introducer fee		-	(150,000)
Occupancy costs		(55,930)	(18,148)
Impairment expense	10	(228,663)	(286,017)
Share-based payments expense	19	(6,517,484)	(1,690,473)
Other expenses		(120,877)	(103,406)
Foreign currency gain/(losses)		76,042	(7,167)
Loss from continuing operations before income tax		(10,744,614)	(3,553,359)
Income tax expense	6	-	-
Loss from continuing operations after income tax		(10,744,614)	(3,553,359)
Other comprehensive income		(99,993)	(22,016)
Other comprehensive income for the year, net of tax		(99,993)	(22,016)
Total comprehensive loss attributable to the members of Vulcan Energy Resources Limited		(10,844,607)	(3,575,375)
Loss per share for the year attributable to the members Vulcan Energy Resources Limited:			
Basic loss per share (cents)	7	(12.32)	(7.37)
Diluted loss per share (cents)	7	(12.32)	(7.37)

The Consolidated Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the notes to the financial statements.

17.5.2 Consolidated Statement of Financial Position

As at 30 June 2021

	Note	2021 \$	2020 \$
ASSETS			
Current assets			
Cash and cash equivalents	8	114,705,865	6,421,557
Trade and other receivables	9	1,197,500	116,071
Total current assets		115,903,365	6,537,628
Non-current assets			
Exploration and evaluation expenditure	10	13,793,798	2,556,980
Plant and equipment	11	1,480,672	13,353
Right-of-use asset	12	566,246	-
Total non-current assets		15,840,716	2,570,333
Total assets		131,744,081	9,107,961
LIABILITIES			
Current liabilities			
Trade and other payables	13	2,113,014	208,222
Lease liabilities	12	62,389	-
Provisions	14	87,584	13,700
Total current liabilities		2,262,987	221,922
Non Current liabilities			
Lease liabilities	12	496,547	-
Total Non current liabilities		496,547	-
Total liabilities		2,759,534	221,922
Net assets		128,984,547	8,886,039
EQUITY			
Contributed equity	15	136,500,372	11,836,741
Reserves	16	7,899,461	1,719,970
Accumulated losses	24	(15,415,286)	(4,670,672)
Total equity		128,984,547	8,886,039

The Consolidated Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the notes to the financial statements.

17.5.3 Consolidated Statement of Changes in Equity

For the Financial Year Ended 30 June 2021

	Issued Capital \$	Reserves \$	Accumulated Losses \$	Total \$
At 1 July 2020	11,836,741	1,719,970	(4,670,672)	8,886,039
Loss for the year	-	-	(10,744,614)	(10,744,614)
Other comprehensive loss for the year	-	(99,993)	-	(99,993)
Total comprehensive loss for the year after tax	-	(99,993)	(10,744,614)	(10,844,607)
<i>Transactions with owners in their capacity as owners:</i>				
Issue of share capital	130,803,628	-	-	130,803,628
Share issue costs	(6,139,977)	-	-	(6,139,977)
Share-based payments	-	6,279,484	-	6,279,484
Balance at 30 June 2021	136,500,372	7,899,461	(15,415,286)	128,984,547

	Issued Capital \$	Reserves \$	Accumulated Losses \$	Total \$
At 1 July 2019	4,746,416	164,013	(1,117,313)	3,793,116
Loss for the year	-	-	(3,553,359)	(3,553,359)
Other comprehensive loss for the year	-	(22,016)	-	(22,016)
Total comprehensive loss for the year after tax	-	(22,016)	(3,553,359)	(3,575,375)
<i>Transactions with owners in their capacity as owners:</i>				
Issue of share capital	7,438,810	-	-	7,438,810
Share issue costs	(348,485)	-	-	(348,485)
Share-based payments	-	1,577,973	-	1,577,973
Balance at 30 June 2020	11,836,741	1,719,970	(4,670,672)	8,886,039

The Consolidated Statement of Changes in Equity should be read in conjunction with the notes to the financial statements.

17.5.4 Consolidated Statement of Cash Flows

For the Financial Year Ended 30 June 2021

	Note	2021 \$	2020 \$
Cash flows from operating activities			
Payments to suppliers and employees		(3,446,209)	(1,427,391)
Interest received		100,937	45,342
Other income		510,879	50,000
Interest paid		(6,752)	-
Net cash used in operating activities	8(a)	<u>(2,841,145)</u>	<u>(1,332,049)</u>
Cash flows from investing activities			
Payments for exploration and evaluation costs		(5,832,409)	(1,205,783)
Net cash acquired from acquisition of subsidiary	17	-	404
Payments for software		-	(13,353)
Payment for plant and equipment		(1,312,818)	-
Net cash used in investing activities		<u>(7,145,227)</u>	<u>(1,218,732)</u>
Cash flows from financing activities			
Proceeds from exercise of listed and unlisted options		4,430,809	-
Proceeds from issued shares		120,000,000	5,976,310
Share issue costs		(6,139,997)	(330,545)
Lease repayments		(22,888)	-
Net cash from financing activities		<u>118,267,924</u>	<u>5,645,765</u>
Net increase in cash and cash equivalents		108,281,552	3,094,984
Cash and cash equivalents at the beginning of the year		6,421,557	3,348,996
Effect of exchange rate fluctuations on cash held		2,756	(22,423)
Cash and cash equivalents at the end of the year	8	<u>114,705,865</u>	<u>6,421,557</u>

The Consolidated Statement of Cash Flows should be read in conjunction with the notes to the financial statements.

17.5.5 Notes to the Consolidated Financial Statements

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Reporting Entity

Vulcan Energy Resources Limited (referred to as "Vulcan" or the "Company") is a company domiciled in Australia. The address of the Company's registered office and principal place of business is disclosed in the Corporate Directory of the Annual Report. The consolidated financial statements of the Company as at and for the year ended 30 June 2021 comprise the Company and its subsidiaries (together referred to as the "consolidated entity" or the "Group").

(b) Basis of Preparation

Statement of compliance

The consolidated financial statements are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") and the Corporations Act 2001. The consolidated financial statements comply with International Financial Reporting Standards ("IFRS") adopted by the International Accounting Standards Board ("IASB"). Vulcan Energy Resources Limited is a for-profit entity for the purpose of preparing the financial statements.

The annual report was authorised for issue by the Board of Directors on 2 September 2021.

Basis of measurement

The consolidated financial statements have been prepared on a going concern basis in accordance with the historical cost convention, unless otherwise stated.

Parent entity information

In accordance with the Corporations Act 2001, these financial statements present the results of the consolidated entity only. Supplementary information about the parent entity is disclosed in Note 26.

New, revised or amended standards and interpretations adopted by the Group

The Group has adopted all of the new, revised or amending Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") that are mandatory for the current reporting period.

The following Accounting Standards and Interpretations are most relevant to the consolidated entity:

Conceptual Framework for Financial Reporting (Conceptual Framework)

The consolidated entity has adopted the revised Conceptual Framework from 1 July 2020. The Conceptual Framework contains new definition and recognition criteria as well as new guidance on measurement that affects several Accounting Standards, but it has not had a material impact on the consolidated entity's financial statements.

Current and non-current classification

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is

cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

Equity Instruments

Where the Group's management has elected to present fair value gains and losses on equity investments in OCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in the profit or loss as other income when the Group's right to receive payments is established.

Financial Assets – Impairment

From 1 July 2019, the Group assesses on a forward-looking basis the expected credit losses (ECLs) associated with its debt instruments carried at amortised cost and FVOCI. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive. The shortfall is then discounted at an approximation to the asset's original effective interest rate.

The Group assesses at each balance date whether there is objective evidence that a financial asset or group of financial assets is impaired. For trade and other receivables, the Group applies the simplified approach permitted by AASB 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables. The expected credit losses on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience.

Employee benefits

Short-term employee benefits

Liabilities for wages and salaries, including non-monetary benefits, annual leave and long service leave expected to be settled wholly within 12 months of the reporting date are measured at the amounts expected to be paid when the liabilities are settled.

Other long-term employee benefits

The liability for annual leave and long service leave not expected to be settled within 12 months of the reporting date are measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on corporate bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

Share-based payments

Equity-settled and cash-settled share-based compensation benefits are provided to employees.

Equity-settled transactions are awards of shares, or options over shares, that are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using either the Binomial or Black-Scholes option pricing model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the consolidated entity receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions are recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest and the expired portion of the vesting period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying either the Binomial or Black-Scholes option pricing model, taking into consideration the terms and conditions on which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- during the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- from the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the consolidated entity or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the consolidated entity or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

New standards and interpretations not yet mandatory or early adopted

Australian Accounting Standards and Interpretations relevant to the Group that have recently been issued or amended but are not yet effective, have not been adopted by the Group for the period ended 30 June 2021 and are outlined in the table below:

Reference	Summary	Application date of the standard	Applies to financial year ended
AASB 2020-8	Amendments to Australian Accounting Standards – Interest Rate Benchmark Reform – Phase 2 Requires that for-profit private sector entities: This Standard amends the Standards to help entities to provide financial statement users with useful information about the effects of the interest rate benchmark reform on those entities' financial statements. As a result of these amendments, an entity: a) will not have to derecognise or adjust the carrying amount of financial instruments for changes required by the reform, but will instead update the effective interest rate to reflect the change to the alternative benchmark rate; b) will not have to discontinue its hedge accounting solely because it makes changes required by the reform, if the hedge meets other hedge accounting criteria; and c) will be required to disclose information about new risks arising from the reform and how it manages the transition to alternative benchmark rates.	1 January 2021	30 June 2022
AASB 2020-3	Annual Improvements to IFRS Standards 2018–2020 and Other Amendments This Standard amends: a) the application of AASB 1 by a subsidiary that becomes a first-time adopter after its parent in relation to the measurement of cumulative translation differences; b) AASB 3 to update references to the Conceptual Framework for Financial Reporting; c) AASB 9 to clarify when the terms of a new or modified financial liability are substantially different from the terms of the original financial liability; d) AASB 116 to require an entity to recognise the sales proceeds from selling items produced while preparing property, plant and equipment for its intended use and the related cost in profit or loss, instead of deducting the amounts received from the cost of the asset; e) AASB 137 to specify the costs that an entity includes when assessing whether a contract will be loss-making; and f) AASB 141 to align the fair value measurement requirements in AASB 141 with those in other Australian Accounting Standards.	1 January 2022	30 June 2023
AASB 2020-1	Amendments to Australian Accounting Standards – Classification of Liabilities as Current or Non-Current Amends AASB 101 to clarify that liabilities are classified as either current or non-current, depending on the rights that exist at the end of the reporting period. Classification is unaffected by the expectations of the entity or events after the reporting date (for example, the receipt of a waiver, a breach of covenant, or settlement of the liability). The mandatory application date of the amendment has been deferred by 12 months to 1 January 2023 by AASB 2020-6.	1 January 2023	30 June 2024
AASB 2021-2	Amendments to Australian Accounting Standards – Disclosure of Accounting Policies and Definition of Accounting Estimates	1 January 2023	30 June 2024

This Standard amends:
AASB 7, to clarify that information about measurement bases for financial instruments is expected to be material to an entity's financial statements;
AASB 101, to require entities to disclose their material accounting policy information rather than their significant accounting policies;
AASB 108, to clarify how entities should distinguish changes in accounting policies and changes in accounting estimates;
AASB 134, to identify material accounting policy information as a component of a complete set of financial statements;
and
AASB Practice Statement 2, to provide guidance on how to apply the concept of materiality to accounting policy disclosures.

The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations but does not expect it to have a significant impact on the Group's results.

Significant Judgements and Estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the consolidated entity's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 2.

(c) Comparatives

The comparative period is 1 July 2019 to 30 June 2020.

(d) Principles of Consolidation

Subsidiaries

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of Vulcan Energy Resources Limited ('Company' or 'parent entity') as at 30 June 2021 and the results of all subsidiaries for the year then ended.

Subsidiaries are all entities (including special purpose entities) over which the consolidated entity has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one-half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the consolidated entity controls another entity.

Subsidiaries are fully consolidated from the date on which control is transferred to the consolidated entity. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between consolidated entity companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the consolidated entity.

The acquisition method of accounting is used to account for business combinations by the consolidated entity. A change in ownership interest, without the loss of control, is accounted for as an equity transaction, where the difference between the consideration transferred and the book value of the share of the non-controlling interest acquired is recognised directly in equity attributable to the parent.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of profit or loss and other comprehensive income, statement of changes in equity and statement of financial position respectively.

(e) Foreign Currency Translation

Functional and presentation currency

Items included in the financial statements of each of the consolidated entity's entities are measured using the currency of the primary economic environment in which the entity operates ("functional currency"). The consolidated financial statements are presented in Australian dollars, which is Vulcan Energy Resources Limited's functional and presentation currency.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

(f) Asset Acquisition not constituting a Business

When an asset acquisition does not constitute a business combination, the assets and liabilities are assigned a carrying amount based on their relative fair values in an asset purchase transaction and no deferred tax will arise in relation to the acquired assets and assumed liabilities as the initial recognition exemption for deferred tax under AASB 112 applies. No goodwill will arise on the acquisition and transaction costs of the acquisition will be included in the capitalised cost of the asset.

(g) Dividends

Dividends are recognised when declared during the financial period and no longer at the discretion of the Company.

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses.

Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions in these financial statements that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period are disclosed below.

Coronavirus (COVID-19) pandemic

Judgement has been exercised in considering the impacts that the Coronavirus (COVID-19) pandemic has had, or may have, on the consolidated entity based on known information. This consideration extends to the nature of the products and services offered, customers, supply chain, staffing and geographic regions in which the consolidated entity operates. Other than as addressed in specific notes, there does not currently appear to be either any significant impact upon the financial statements or any significant uncertainties with respect to events or conditions which may impact the consolidated entity unfavourably as at the reporting date or subsequently as a result of the Coronavirus (COVID-19) pandemic.

Exploration and evaluation expenditure

Exploration and evaluation costs have been capitalised on the basis that activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves. Key judgements are applied in considering costs to be capitalised which includes determining expenditures directly related to these activities and allocating overheads between those that are expensed and capitalised.

Share-based payments

The Group measures the cost of equity settled transactions with Directors, employees and consultants, where applicable, by reference to the fair value of equity instruments at the date at which they are granted. The fair value is determined using an appropriate valuation model taking into account the terms and conditions upon which the instruments were granted. The accounting estimates and assumptions relating to equity-settled share-based payments would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact profit or loss and equity.

Estimation of useful lives of assets

The consolidated entity determines the estimated useful lives and related depreciation and amortisation charges for its plant and equipment. The useful lives could change significantly as a result of technical innovations or some other event. The depreciation and amortisation charge will increase where the useful lives are less than previously estimated lives, or technically obsolete or non-strategic assets that have been abandoned or sold will be written off or written down.

NOTE 3 SEGMENT INFORMATION

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision makers. The chief operating decision makers, who are responsible for allocating resources and assessing performance of the operating segments, have been identified as the Board of Directors.

For the financial years ended 30 June 2020 and 30 June 2021 and following the acquisition of a 100% interest in the Vulcan Lithium Project in the Upper Rhine Valley of Germany on 4 September 2019, it was determined that the Group operates in three operating segments being, energy metals exploration in Germany, copper and zinc mineral exploration in Norway and resources allocated to administration. This is the basis in which internal reports are provided to the Directors for assessing performance and determining the allocation of resources within the Group.

For the year ended 30 June 2021

Segment performance	Exploration Germany	Exploration Norway	Administration	Total
30 June 2021	\$	\$	\$	\$
Revenue				
Interest income	-	-	120,663	120,663
Other income	327,380	-	183,499	510,879
Total segment revenue	327,380	-	304,162	631,542

Reconciliation of segment results to net loss before tax

Amounts not included in segment results but reviewed by the Board

- Administration, consulting and other expenses	(11,376,156)
Net loss before tax from continuing operations	(10,744,614)

Segment assets	Exploration Germany	Exploration Norway	Administration	Total
30 June 2021	\$	\$	\$	\$
Total segment asset	16,504,072	388,045	114,851,961	131,744,078

For the year ended 30 June 2020

Segment performance	Exploration Germany	Exploration Norway	Administration	Total
30 June 2020	\$	\$	\$	\$
Revenue				
Interest income	-	-	45,342	45,342
Other income	-	-	50,000	50,000
Total segment revenue	-	-	95,342	95,342

Reconciliation of segment results to net loss before tax

Amounts not included in segment results but reviewed by the Board

- Administration, consulting and other expenses	(3,648,701)
Net loss before tax from continuing operations	(3,553,359)

Segment assets	Exploration Germany	Exploration Norway	Administration	Total
30 June 2020	\$	\$	\$	\$
Total segment asset	2,279,731	290,602	6,537,628	9,107,961

Segment liabilities	Exploration Germany	Exploration Norway	Administration	Total
30 June 2020	\$	\$	\$	\$
Total segment liabilities	30,984	668	190,270	221,922

Accounting Policy

Segment Reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board. Management has determined that based on the report reviewed by the Board and used to make strategic decisions, that the consolidated entity has one reportable segment.

NOTE 4 REVENUE

	2021	2020
	\$	\$
Other income		
Interest income	120,678	45,342
Cash Boost	50,000	50,000
R&D tax incentive	133,484	-
InnoEnergy Funding	327,380	-
	631,542	95,342

NOTE 5 EXPENSES

	2021	2020
	\$	\$
(a) Administration expenses		
Accounting, audit and company secretarial fees	103,559	151,336
Travel expenses	51,926	107,183
General expenses	732,660	62,401
	<u>888,145</u>	<u>320,920</u>
(b) Consultancy and legal expenses		
Corporate advisory fees	87,456	105,000
Consulting fees	1,054,926	314,961
Legal fees	780,390	4,642
	<u>1,922,772</u>	<u>424,603</u>

NOTE 6 INCOME TAX

	2021	2020
	\$	\$
(a) The components of tax expense comprise:		
Current tax	-	-
Deferred tax	-	-
Income tax expense reported in the of profit or loss and other comprehensive income	<u>-</u>	<u>-</u>
(b) The prima facie tax on loss from ordinary activities before income tax is reconciled to the income tax as follows:		
Loss before income tax expense	<u>(10,744,614)</u>	<u>(3,553,359)</u>
Prima facie tax benefit on loss before income tax at 30% (2020: 30%)	(3,223,384)	(1,066,008)
Tax effect of amounts that are not deductible/taxable in calculating taxable income		
Non-deductible expense	2,271,803	603,944
Tax losses and temporary differences not brought to account	797,865	451,694
Foreign corporate rate differential	153,716	10,370
Income tax expense	<u>-</u>	<u>-</u>
(c) Deferred tax assets/(liabilities) not brought to accounts are:		
Accruals	93,062	26,411
Prepayments	(21,970)	(5,743)
Other	65,140	20,042
Tax losses	1,050,391	606,194
Total deferred tax balances not brought to account	<u>1,186,623</u>	<u>646,904</u>

Potential deferred tax assets attributable to tax losses and other temporary differences have not been brought to account at 30 June 2021 because the directors do not believe it is appropriate to regard realisation of the deferred tax assets as probable at this point in time. These benefits will only be obtained if:

- the Company derives future assessable income of a nature and of an amount sufficient to enable the benefit from the deductions for the expenditure to be realised; and
- no changes in tax legislation adversely affect the Company in realising the benefit from the deductions for the expenditure.

Accounting Policy

The income tax expense (revenue) for the year comprises current income tax expense (income) and deferred tax expense (income).

Current Tax

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

Deferred Tax

Deferred tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year as well as unused tax losses.

Current and deferred income tax expense (income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

Deferred tax assets and liabilities are ascertained based on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets also result where amounts have been fully expensed but future tax deductions are available. No deferred income tax will be recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax assets and liabilities are calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates enacted or substantively enacted at the end of the reporting period. Their measurement also reflects the manner in which management expects to recover or settle the carrying amount of the related asset or liability.

Deferred tax assets relating to temporary differences and unused tax losses are recognised only to the extent that it is probable that future taxable profit will be available against which the benefits of the deferred tax asset can be utilised.

Where temporary differences exist in relation to investments in subsidiaries, branches, associates, and joint ventures, deferred tax assets and liabilities are not recognised where the timing of the reversal of the temporary difference can be controlled and it is not probable that the reversal will occur in the foreseeable future.

Current tax assets and liabilities are offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities are offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

NOTE 7 LOSS PER SHARE

	2021	2020
	\$	\$
Net loss for the year	(10,744,614)	(3,553,359)
Weighted average number of ordinary shares for basic and diluted loss per share.	87,204,203	48,226,596
Basic and diluted loss per share (cents)	(12.32)	(7.37)

Accounting Policy**Basic Loss Per Share**

Basic loss per share is determined by dividing net profit or loss after income tax attributable to members of the Company, excluding any costs of servicing equity other than ordinary shares, by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the year.

Diluted Loss Per Share

Diluted loss per share adjusts the figures used in the determination of basic earnings per share to take into account the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential ordinary shares.

NOTE 8 CASH AND CASH EQUIVALENTS

	2021	2020
	\$	\$
Cash at bank and in hand	6,156,871	4,621,557
Short-term deposits	108,548,994	1,800,000
	<u>114,705,865</u>	<u>6,421,557</u>

(a) Reconciliation of net loss after tax to net cash flows from operations

Loss for the financial year	(10,744,614)	(3,553,359)
<i>Adjustments for:</i>		
Share-based payments expense	6,857,484	2,040,473
Impairment expense	228,663	286,017
Depreciation	131,522	-
<i>Changes in assets and liabilities</i>		
Trade and other receivables	(113,154)	(81,008)
Trade and other payables	725,069	(24,172)
Provisions	73,884	-
Net cash used in operating activities	<u>(2,841,145)</u>	<u>(1,332,049)</u>

Accounting Policy

Cash at bank earns interest at floating rates based on daily deposit rates. Short-term deposits are made in varying periods between one day and three months, depending on the immediate cash requirements of the Group and earn interest at the respective short-term deposit rates.

NOTE 9 TRADE AND RECEIVABLES

	2021	2020
	\$	\$
GST receivable	23,479	47,049
Other receivables	182,124	17,592
VAT receivable	573,384	51,430
Other deposits	418,513	-
	1,197,500	116,071

Allowance for impairment loss

Other receivables are non-interesting bearing and are generally on terms of 30 days.

Trade Receivables

Trade and other receivables include amounts due from customers for goods sold and services performed in the ordinary course of business. Receivables expected to be collected within 12 months of the end of the reporting period are classified as current assets. All other receivables are classified as non-current assets. Refer to Note 1 for expected credit loss allowance assessment.

Goods and Services Tax ('GST')

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position.

Cash flows are presented in the statement of cash flows on a gross basis, except for the GST on investing and financial activities, which are disclosed as operating cash flows.

Other Receivables

Other receivables are recognised at amortised cost, less any provision for expected credit loss. Other receivables do not contain impaired assets and are not past due. Based on the credit history, it is expected that these other balances will be received when due.

Value Added Tax ("VAT")

Revenues expenses and assets are recognised net of VAT, except where the amount of VAT incurred is not recoverable from the German tax authority. In these circumstances the VAT is recognised as part of the cost of acquisition or parts of the expense. Receivables and payables are stated inclusive of the amount of VAT receivable or payable. The net amount of VAT recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position. Cash flows are presented in the statement of cash flows on a gross basis, except for the VAT on investing and financial activities, which are disclosed as operating cash flows.

Other Deposits

Other deposits represent an unconditional performance bond.

NOTE 10 EXPLORATION AND EVALUATION EXPENDITURE

	2021	2020
	\$	\$
Carrying amount of exploration and evaluation expenditure	13,793,798	2,556,980
At the beginning of the year	2,556,980	526,001
Exploration expenditure incurred	5,670,681	1,195,871
Vulcan Energy Europe acquisition (1)	5,794,800	1,121,125
Impairment expense	(228,663)	(286,017)
At the end of the year	13,793,798	2,556,980

(1) – - During the 2020/2021 period, the Company issued 1,320,000 shares to various parties involved in introducing the Zero Carbon Lithium Project™ ('Project') in Germany, through the acquisition of Vulcan Energy Resources Europe Pty Ltd, as initially announced on 10 July 2019. The issue of these shares remained subject to shareholder approval and meeting certain milestones. On 21 February 2020, the Company reached Milestone 1 by announcing a positive scoping study in relation to the Project. On 15 January 2021, the Company also reached Milestone 2 by announcing a positive pre-feasibility study in relation to the Project. The Company obtained shareholder approval for the issue of the Milestone 1 shares (being 660,000 shares) and Milestone 2 shares (being 660,000 shares) on 10 September 2020 and 24 June 2021 respectively. The issue of these shares were valued at \$587,400 and \$5,207,400 respectively (refer to Note 15).

Accounting Policy

Acquisition, exploration and evaluation costs associated with mining tenements are accumulated in respect of each identifiable area of interest. These costs are only carried forward to the extent that the rights of tenure to that area of interest are current and that the costs are expected to be recouped through the successful commercial development or sale of the area or where activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves.

Costs in relation to an abandoned area are written off in full against profit in the period in which the decision to abandon the area is made.

Each area of interest is also reviewed annually, and acquisition costs written off to the extent that they will not be recoverable in the future.

11 PLANT AND EQUIPMENT

	2021	2020
	\$	\$
Software	173,188	13,353
Plant & Equipment	564,447	-
Assets under Construction	743,037	-
	<u>1,480,672</u>	<u>13,353</u>

Movement in carrying amounts of plant and equipment for year ended 30 June 2021

	Software	Plant & Equipment	Assets under construction	Total
	\$	\$	\$	\$
Balance at 1 July 2020	13,353	-	-	13,353
				-
Additions	164,136	662,135	743,037	1,569,308
Depreciation	(4,301)	(97,688)	-	(101,989)
Balance at 30 June 2021	<u>173,188</u>	<u>564,447</u>	<u>743,037</u>	<u>1,480,672</u>

Movement in carrying amounts of plant and equipment for year ended 30 June 2020

	Software	Plant & Equipment	Assets under construction	Total
	\$	\$	\$	\$
Balance at 1 July 2019	-	-	-	-
Additions	13,353	-	-	13,353
Depreciation	-	-	-	-
Balance at 30 June 2021	<u>13,353</u>	<u>-</u>	<u>-</u>	<u>13,353</u>

Accounting Policy

Plant and equipment is stated at historical cost less accumulated depreciation and impairment. Historical cost includes expenditure that is directly attributable to the acquisition of the items

Once assets are available for use, depreciation is calculated using the straight-line method to allocate asset costs over their estimated useful lives, as follows:

Software	3 -5 years
Plant & Equipment	2-15 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

NOTE 12 LEASES

Right-of-use asset	Office space	Vehicles	Total
Cost			
At 1 July 2020	-	-	-
Additions	528,584	60,011	588,595
At 30 June 2021	528,584	60,011	588,595
Accumulated Depreciation			
At 1 July 2020	-	-	-
Depreciation for the year	16,348	6,001	22,349
	16,348	6,001	22,349
Carrying amount			
At 1 July 2020	-	-	-
At 30 June 2021	512,236	54,010	566,246
Lease Liabilities			
At 1 July 2020	-	-	-
New lease liabilities entered during the period	528,584	60,011	588,595
Add: Interest	5,242	1,510	6,752
Less: Payment	(18,513)	(17,898)	(36,411)
Closing Balance	515,313	43,623	558,936
Represented by:			
Current lease liabilities	54,429	7,960	62,389
Non-current lease liabilities	460,884	35,663	496,547
	515,313	43,623	558,936

Accounting Policy**Right-of-use assets:**

A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and, except where included in the cost of inventories, an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Where the consolidated entity expects to obtain ownership of the leased asset at the end of the lease term, the depreciation is over its estimated useful life. Right-of use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

The consolidated entity has elected not to recognise a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of low-value assets. Lease payments on these assets are expensed to profit or loss as incurred.

Lease liabilities

A lease liability is recognised at the commencement date of a lease. The lease liability is initially recognised at the present value of the lease payments to be made over the term of the lease, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the consolidated entity's incremental borrowing rate. Lease payments comprise of fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate,

amounts expected to be paid under residual value guarantees, exercise price of a purchase option when the exercise of the option is reasonably certain to occur, and any anticipated termination penalties. The variable lease payments that do not depend on an index or a rate are expensed in the period in which they are incurred.

Lease liabilities are measured at amortised cost using the effective interest method. The carrying amounts are remeasured if there is a change in the following: future lease payments arising from a change in an index or a rate used; residual guarantee; lease term; certainty of a purchase option and termination penalties. When a lease liability is remeasured, an adjustment is made to the corresponding right-of use asset, or to profit or loss if the carrying amount of the right-of-use asset is fully written down.

The Group leases office space and vehicles through its German subsidiary Vulcan Energie Ressourcen GmbH .

NOTE 13 TRADE AND OTHER PAYABLES

(i) Trade payables are non-interest bearing and are normally settled on 30-day terms.

Due to the short-term nature of these payables, their carrying value is assumed to be the same as their fair value.

Accounting Policy

Trade payables and other payables represent liabilities for goods and services provided to the Group prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

NOTE 14 PROVISION

	2021	2020
	\$	\$
Annual leave provision	87,584	13,700
	87,584	13,700

Accounting Policy

Provisions

Provisions are recognised when the consolidated entity has a present (legal or constructive) obligation as a result of a past event, it is probable the consolidated entity will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation. If the time value of money is material, provisions are discounted using a current pre-tax rate specific to the liability. The increase in the provision resulting from the passage of time is recognised as a finance cost.

NOTE 15 CONTRIBUTED EQUITY

(a) Issued and fully paid	2021		2020	
	No.	\$	No.	\$
Ordinary shares	108,422,717	136,500,373	67,217,555	11,836,741

Ordinary shares entitle the holder to participate in the dividends and the proceeds on winding up in proportion to the number of and amounts paid on the shares held.

At shareholders meetings, each ordinary share is entitled to one vote when a poll is called, otherwise each shareholder has one vote on a show of hands.

(b) Movement reconciliation

	Date	Number	Issue Price	\$
At 1 July 2019		31,750,001		4,746,416
Placement to sophisticated investors	10/07/2019	2,820,000	0.15	423,000
Placement to sophisticated investors	19/07/2019	3,513,334	0.15	527,000
Shares issued for services rendered	5/08/2019	1,000,000	0.20	200,000
Shares to Vendors and Introducers as part of consideration for the Acquisition	4/09/2019	7,666,667	0.15	1,150,000
Shares issued to Director to incentive performance and retain services	4/09/2019	750,000	0.15	112,500
Share issue to Director for participation in Placement	4/09/2019	1,000,000	0.15	150,000
Less Capital raising costs		-	-	(58,425)
Conversion of Class A performance shares and Class D performance rights	28/02/2020	5,170,000	-	-
Conversion of Class A performance rights	30/06/2020	800,000	-	-
Conversion of Class A performance shares	30/06/2020	480,000	-	-
Conversion of listed options	30/06/2020	267,753	0.29	76,310
Placement to sophisticated investors	30/06/2020	12,000,000	0.40	4,800,000
Less Capital raising costs	30/06/2020	-	-	(290,060)
At 30 June 2020		67,217,755		11,836,741
At 1 July 2020		67,217,755		11,836,741
Shares issued in lieu of cash fees for services rendered	6/10/2020	400,000	0.85	340,000
Conversion of Listed Options	2/7/2020 - 17/12/2020	8,930,765	0.29	2,545,268
Conversion of Unlisted Options	15/10/2020-26/11/2020	1,125,250	0.80	900,200
Conversion of Class B Performance Rights	16/09/2020	500,000	-	-
Introducer shares	16/09/2020	660,000	0.89	587,400
Shares issued to Director	27/11/2020	100,000	2.38	238,000

Conversion of Class B Performance Shares	15/01/2021	4,400,000	-	-
Conversion of Class E & K Performance Rights	15/01/2021	2,250,000	-	-
Conversion of Listed Options	20/12/2020-			
	20/01/2021	3,457,409	0.29	985,362
Placement	6/02/2021	18,423,077	6.50	119,750,001
Conversion of Class H Performance shares	11/05/2021	260,000	-	-
Less capital raising costs		-	-	(6,139,997)
Placement to Director	30/06/2021	38,461	6.50	249,997
Introducer shares	30/06/2021	660,000	7.89	5,207,400
At 30 June 2021		108,422,717		136,500,372

Accounting Policy

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds. Incremental costs directly attributable to the issue of new shares or options for the acquisition of a business are not included in the cost of the acquisition as part of the purchase consideration.

If the entity reacquires its own equity instruments, for example, as a result of a share buy-back, those instruments are deducted from equity and the associated shares are cancelled. No gain or loss is recognised in the profit or loss and the consideration paid including any directly attributable incremental costs (net of income taxes) is recognised directly in equity.

NOTE 16 RESERVES

	2021 \$	2020 \$
Share-based payment reserve	8,021,470	1,741,986
Foreign currency translation reserve	(122,009)	(22,016)
Total	7,899,461	1,719,970

	Number of Warrants	Number of Listed options	Number of Unlisted Options	Number of Performance Shares	Number of Performance Rights	\$
<u>Movement reconciliation</u>						
On issue at 1 July 2019	-	12,687,512	-	-	3,900,000	164,013
Issue of performance rights during the year	-	-	-	-	5,000,000	-
Recognition of share-based payment expense for performance rights issued to Directors and staff (Note 19)	-	-	-	-	-	689,625
Performance share issued during the year	-	-	-	13,200,000	-	-
Recognition of share-based payment expense for performance shares issued to Vendors on Acquisition (Note 19)	-	-	-	-	-	888,348

Performance rights cancelled during the year	-	-	-	-	(2,600,000)	-
Exercise of performance rights during the year	-	-	-	-	(2,050,000)	-
Exercise of performance shares during the year	-	-	-	(4,400,000)	-	-
Exercise of listed options during the year	-	(267,753)	-	-	-	-
On issue at 30 June 2020	-	12,419,759	-	8,800,000	4,250,000	1,741,986

	Number of Warrants	Number of Listed options	Number of Unlisted Options	Number of Performance Shares	Number of Performance Rights	\$
<u>Movement</u>						
<u>reconciliation</u>						
On issue at 1 July 2020	-	12,419,759	-	8,800,000	4,250,000	1,741,986
Issue of performance rights during the year	-	-	-	-	10,248,688	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 19)	-	-	-	-	-	4,419,668
Performance rights cancelled during the year	-	-	-	-	(250,000)	-
Recognition of share - based payment expense for performance rights issued to Vendors on Acquisition (Note 19)	-	-	-	-	-	752,017
Issue of unlisted options during the year	-	-	1,112,250	-	-	-
Exercise of unlisted options during the year	-	-	(1,112,250)	-	-	-
Recognition of share based payment expense for unlisted options issued (Note 19)	-	-	-	-	-	369,757
Exercise of listed options during the year	-	(12,388,174)	-	-	-	-
Listed options expired during the year	-	(31,585)	-	-	-	-
Exercise of Performance	-	-	-	-	(3,010,000)	-

rights during the year						
Warrants issued during the year	512,447	-	-	-	-	-
Recognition of shared based payment expense for warrants issued during the year	-	-	-	-	-	373,836
Exercise of Performance Shares during the year	-	-	-	(4,400,000)	-	-
Recognition of shared based payment expense for performance rights issued to Directors & staff in prior periods (Note 19)	-	-	-	-	-	364,206
On issue at 30 June 2021	512,447	-	-	4,400,000	11,238,688	8,021,470

The option reserve is used to record the value of share-based payments provided to outside parties, and share-based remuneration provided to employees and directors.

	2021	2020
	\$	\$
Foreign Currency Translation Reserve		
Balance at the beginning of the year	(22,016)	-
Movement during the year	(99,993)	(22,016)
Balance at the end of the year	(122,009)	(22,016)

NOTE 17 ACQUISITION OF SUBSIDIARY

On 4 September 2019, the Company successfully completed its acquisition of 100% of the issued capital of Vulcan Energy Resources Europe Pty Ltd ("the Vulcan Lithium Project"). The acquisition was assessed as an asset acquisition rather than a business combination. The Company issued 6,666,667 fully paid ordinary shares in the Company to the Vendors, Dr Wedin and Dr Horst Kreuter to acquire the asset.

	4 September 2019
	\$
Fair value of shares issued	1,000,000
Purchase consideration	1,000,000

Fair value of net assets acquired are as follows:

Cash and cash equivalents		404
Exploration and evaluation expenditure	Note 10	1,121,125
Trade and other payables		(121,529)
		1,000,000

NOTE 18 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk and interest rate risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of the financial markets and seeks to minimise potential adverse effects on the financial performance of the Group. The Group uses different methods to measure and manage different types of risks to which it is exposed.

These include monitoring levels of exposure to interest rate and foreign exchange risk and assessments of market forecasts for interest rate and foreign exchange prices. Ageing analysis and monitoring of specific credit allowances are undertaken to manage credit risk. Liquidity risk is monitored through the development of future cash flow forecasts.

Risk management is carried out by Management and overseen by the Board of Directors with assistance from suitably qualified external advisors.

The main risks arising for the Group are foreign exchange risk, interest rate risk, credit risk and liquidity risk. The Board reviews and agrees policies for managing each of these risks and they are summarised below.

The carrying values of the Group's financial instruments are as follows:

	2021	2020
	\$	\$
Financial Assets		
Cash and cash equivalents	114,705,865	6,421,557

Trade and other receivables	1,197,500	116,071
	<u>115,903,365</u>	<u>6,537,628</u>
Financial Liabilities		
Trade and other payables	2,113,016	221,922
Lease liabilities	558,936	-
	<u>2,671,952</u>	<u>221,922</u>

(a) Market risk

(i) Foreign exchange risk

The Group's exposure to foreign currency risk at the end of the reporting period, expressed in Australian dollar, was as follows:

	30 June 2021		30 June 2020	
	AUD	EUR	AUD	EUR
Other Receivables	146,099	1,051,401	66,118	49,953
Trade Payables	(615,398)	(827,581)	(85,903)	(1,510)
Other Payables	(348,052)	(968,503)	(105,035)	(30,984)
	<u>(817,351)</u>	<u>(744,683)</u>	<u>(124,820)</u>	<u>17,459</u>

The aggregate net foreign exchange gains/losses recognised in the P&L were:

	2021	2020
Net foreign exchange gains/losses recognised in the P&L were:	76,042	(7,167)

Sensitivity

As shown in the table above, the group is primarily exposed to changes in EUR/AUD exchange rates. The sensitivity of profit or loss to changes in the exchange rates is:

	Impact on post-tax profit	
	2021	2020
	\$	\$
EUR/AUD exchange rate - increase 10% (2020 -10%)*	65,637	6,651
EUR/AUD exchange rate - decrease 10% (2020 -10%)*	(80,222)	(8,128)
*Holding all other variables constant	-	

(ii) Interest rate risk

The Group is exposed to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in the market interest rates on interest bearing financial instruments. The Group's exposure to this risk relates primarily to the Group's cash and any cash on deposit. The Group does not use derivatives to mitigate these exposures. The Group manages its exposure to interest rate risk by holding certain amounts of cash in fixed and floating interest rate facilities. At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was:

	2021		2020	
	Weighted average interest rate	Balance \$	Weighted average interest rate	Balance \$
Cash and cash equivalents	0.23%	114,705,865	0.08%	6,421,557

Sensitivity

Within the analysis, consideration is given to potential renewals of existing positions and the mix of fixed and variable interest rates. The following sensitivity analysis is based on the interest rate risk exposures in existence at the reporting date. The 1% increase and 1% decrease in rates is based on reasonably expected possible changes over a financial year.

At 30 June 2021, if interest rates had moved, as illustrated in the table below, with all other variables held constant, losses and equity would have been affected as follows:

<i>Judgements of reasonably possible movements:</i>	Profit higher/(lower) 2021 \$	Profit higher/(lower) 2020 \$
+ 1.0% (100 basis points)	1,147,059	64,216
- 1.0% (100 basis points)	(1,147,059)	(64,216)

(b) Credit risk

Credit risk arises from the financial assets of the Group, which comprise cash and cash equivalents, trade and other receivables and other financial assets. The Group's exposure to credit risk arises from potential default of the counterparty, with maximum exposure equal to the carrying amount of the financial assets.

The Group's policy is to trade only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms will be subject to credit verification procedures.

In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant. There are no significant concentrations of credit risk within the Group except for cash and cash equivalents.

(c) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation.

The Group manages liquidity risk by maintaining adequate cash reserves from funds raised in the market and by continuously monitoring forecast and actual cash flows. The Group does not have any external borrowings.

The following are the contractual maturities of financial liabilities:

	1 year or less \$	1-5 years \$	> 5 years \$	Total \$
2021				
Trade and other payables	2,113,014	-	-	2,113,014
Lease Liabilities	62,389	283,267	213,280	558,936
2020				
Trade and other payables	221,922	-	-	221,922

(d) Capital risk management.

The Group's objectives when managing capital are to:

Safeguard their ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders; and

Maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the number of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Given the stage of the Company's development there are no formal targets set for return on capital. The Company is not subject to externally imposed capital requirements. The net equity of the Company is equivalent to capital. Net capital is obtained through capital raisings on the Australian Securities Exchange ("ASX").

NOTE 19 SHARE-BASED PAYMENTS

	2021	2020
	\$	\$
Recognised share-based payment transactions		
Performance rights issued to Directors, staff and consultants (i)	4,419,668	-
Performance rights issued to Directors & staff in prior periods (ii)	364,206	689,626
Performance shares issued to Vendors of Acquisition (iii)	752,017	888,348
Shares issued for consideration of services	340,000	462,500
Shares issued to Director	238,000	-
Warrants (iv)	373,836	-
Unlisted Options (v)	369,757	-
Shares issued to Introducers of Acquisition (Note 10)	5,794,800	-
	<u>12,652,284</u>	<u>2,040,473</u>

Represented by

Shared-based payment expense	6,517,484	1,690,473
Investor relations expense	340,000	200,000
Introducer fee	-	150,000
Capitalised exploration assets (Note 10)	5,794,800	-
	<u>12,652,284</u>	<u>2,040,473</u>

- (i) The Company issued the total of 10,248,688 performance rights during the year to the Directors, staff and consultants to align their interests to that of the Company's shareholders and assist as an effective means of retaining staff.

Based on management assessment, a percentage of a share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income.

Details of Performance Rights granted during the year are:

	Fair value of each right	Expected volatility	Grant date	Price at grant date (\$)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of Rights	Total value of Rights (\$)	Share based payment expense (\$)
Class H	\$1.05 & \$0.90	N/A	11/9/2020 & 15/9/2020	1.05 & 0.90	1/12/2023	N/A	N/A	250,000 & 250,000	487,500	487,500
Class H	\$2.38	N/A	25/11/2020	2.38	1/12/2023	N/A	N/A	250,000	595,000	595,000
Class I	\$1.05 & \$0.90	N/A	11/9/2020 & 15/9/2020	1.05 & 0.90	1/12/2023	N/A	N/A	250,000 & 250,000	487,500	115,805
Class I	\$2.38	N/A	25/11/2020	2.38	1/12/2023	N/A	N/A	250,000	595,000	- (i)
Class J	\$0.57	70%	10/09/2020	0.89	16/09/2023	1.84	0.26%	2,500,000	1,422,500	264,991
Class K	\$0.72	70%	10/09/2020	0.89	16/09/2023	1.23	0.26%	1,000,000	720,000	720,000
Class L	\$0.61	70%	10/09/2020	0.89	16/09/2023	1.64	0.26%	1,000,000	614,000	130,719
Class M	\$0.89	N/A	10/09/2020	0.89	1/12/2023	N/A	N/A	1,500,000	1,335,000	1,335,000
Class N	0.89	N/A	10/09/2020	0.89	1/12/2023	N/A	N/A	1,500,000	1,335,000	506,350
Class P	\$0.9 & \$7.6	N/A	15/09/2020 & 29/06/2021	\$0.9 & \$7.6	1/12/2023	N/A	N/A	250,000 & 60,000	681,000	47,032
Class Q	\$2.38	N/A	25/11/2020	2.38	27/11/2021	N/A	N/A	100,000	238,000	140,725
Class R	\$2.38	N/A	25/11/2020	2.38	27/11/2022	N/A	N/A	100,000	238,000	70,555
Class S	\$7.80	N/A	24/06/2021	\$7.80	30/06/2025	N/A	N/A	38,688	301,766	3,031
Class T	\$7.60	N/A	29/06/2021	\$7.60	1/12/2024	N/A	N/A	250,000	1,900,000	1,139
Class U	\$7.60	N/A	29/06/2021	\$7.60	1/12/2024	N/A	N/A	250,000	1,900,000	1,063
Class V	\$7.60	N/A	29/06/2021	\$7.60	1/12/2024	N/A	N/A	100,000	760,000	456
Class W	\$7.60	N/A	29/06/2021	\$7.60	1/12/2024	N/A	N/A	100,000	760,000	302

(1) Class I has no share-based payment expense for the year due to performance rights lapsed in June 2021 following Dr Katherina Gerber resignation from the Company.

Details of Performance Rights vesting conditions:

Class H

- the Company announcing, on or before 18 May 2022, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable.

Class I

- the Company announcing, on or before 18 May 2023, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of \$10,000,000 investment in relation to the Project.

Class J

- the Company announcing, within 36 months from the date of issue, a positive (JORC-Compliant) Definitive Feasibility Study in relation to the Project confirming it is commercially viable; and

- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 225% of the VWAP for Shares for the last 5 trading days up to but not including the date of the Meeting (the Reference Price).

Class K

- the Company announcing, within 36 months from the date of issue, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable; and

- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 150% of the Reference Price.

Class L

- the Company announcing, within 36 months from the date of issue, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of \$10,000,000 investment in relation to the Project; and

- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 200% of the Reference Price.

Class M

- the Company announcing, on or before 21 May 2021, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable.

Class N

- the Company announcing, on or before 21 May 2022, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of \$10,000,000 investment in relation to the Project.

Class P

- the Company announcing before 31 December 2022 a positive Definitive Feasibility Study in relation to the Project confirming it is commercially viable.

Class Q

- Vesting on issue, and converting to shares on a one for one basis on the date that is 12 months from the date of issue.

Class R

- Vesting on issue, and converting to shares on a one for one basis on the date that is 24 months from the date of issue.

Class S

- one third vesting 12 months from the date of the 24 June 2021 General Meeting (EGM), one third vesting 24 months from EGM, one third vesting 36 months from EGM.

Class T

- the Company being issued a building permit for the first geothermal power plant or, in the case of a pure heating project with no electricity production, the transfer station, on or before the Expiry Date of 1st December 2024;

Class U

- the Company being issued a building permit for the first Direct Lithium Extraction system, on or before the Expiry Date of 1st December 2024.

Class V

- the Company being granted a permit according to BImSchG for the first lithium refinery, on or before the Expiry Date of 1st December 2024;

Class W

- the Company announcing commissioning of the first commercial lithium extraction plant, on or before the Expiry Date of 1st December 2024;

(ii) In the prior year, 5,000,000 performance rights were granted and issued as follows:

On 4 September 2019, the Company issued 3,750,000 performance rights to Mr Gavin Rezos as an incentive in connection with his appointment as Chairman.

On 18 May 2020, the Company issued 1,250,000 performance rights to staff as incentive in connection with their appointment.

3,900,000 performance rights were granted and issued to directors in prior periods. These were issued on 20 December 2018.

Based on management assessment, percentage of a share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income.

Details of Performance Rights granted in prior years are:

Details of Performance Rights vesting conditions:

	Fair value of each right	Expected volatility	Grant date	Price at grant date (\$)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of Rights	Total value of Rights (\$)	Share based payment expense (\$)

Class A	\$0.1463	90%	30/11/2018	0.18	30/11/2021	0.4	0.0206	1,200,000	175,560	- (i)
Class B	\$0.1124	90%	30/11/2018	0.18	30/11/2021	0.75	0.0206	1,200,000	134,880	10,683
Class C	\$0.0906	90%	30/11/2018	0.18	30/11/2021	1.1	0.0206	1,500,000	135,900	- (ii)
Class D	\$0.15	N/A	4/09/2019	0.15	4/09/2020	N/A	N/A	1,250,000	187,500	- (i)
Class E	\$0.15	N/A	4/09/2019	0.15	4/09/2021	N/A	N/A	1,250,000	187,500	141,190
Class F	\$0.15	N/A	4/09/2019	0.15	4/09/2022	N/A	N/A	1,250,000	187,500	72,451
Class G	\$0.225	N/A	11/05/2020	0.225	1/12/2023	N/A	N/A	250,000	56,250	- (i)
Class H	\$0.225	N/A	11/05/2020 & 14/5/2020	0.225	1/12/2023	N/A	N/A	500,000	112,500	108,049
Class I	\$0.225	N/A	14/05/2020	0.225	1/12/2023	N/A	N/A	500,000	112,500	31,833

(1) Class A, D and G have no share-based payment expense for the year due to performance rights vested in the prior year.

(2) Class C has no share-based payment expense for the year due to performance rights cancelled in the prior year.

Class A

- Will vest if, at any time within 36 months following grant date of the Rights the VWAP of the Company's shares traded on the ASX over five (5) consecutive trading days is equal to or greater than \$0.40.

Class B

- Will vest if, at any time within 36 months following grant date of the Rights the VWAP of the Company's shares traded on the ASX over five (5) consecutive trading days is equal to or greater than \$0.75.

Class C

- Will vest if, at any time within 36 months following grant date of the Rights the VWAP of the Company's shares traded on the ASX over five (5) consecutive trading days is equal to or greater than \$1.10.

Class D

- Vest immediately and convert into Shares on the Company announcing a positive scoping study in relation to the Vulcan Lithium Project, confirming the Vulcan Lithium Project is commercially viable within 12 months of completion of the Acquisition.

Class E

- Vest immediately and will convert into shares on the Company announcing a positive preliminary feasibility study in relation to the Vulcan Lithium Project, confirming the Vulcan Lithium Project is commercially viable within 24 months of completion of the Acquisition.

Details of Performance Rights vesting conditions:

Class F

- Vest immediately and will convert into shares on the Company announcing that it has secured either an offtake agreement representing a minimum of 30% of production volume over a three year term, or a downstream joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within 36 months of completion of the Acquisition.

Class G

- Will vest upon the holder completing six months continuous employment with the Company, with an expiry date of 1 December 2023.

Class H

- Will vest upon the Company announcing a positive preliminary feasibility study in relation to the Vulcan Lithium Project, confirming the Lithium Project is commercially viable within two years of issue of the Performance Rights, with an expiry date of 1 December 2023.

Class I

- Will vest upon the Company announcing that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three year term, or a downstream lithium chemicals joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within three years of issue of the Performance Rights, with an expiry date of 1 December 2023.

- (iii) On 4 September 2019, the Company issued 13,200,000 Performance Shares (PS) issued to Vendors of the Vulcan Lithium Project Acquisition which will each convert into a Share on a one for one basis on the satisfaction of milestones. Based on management assessment, percentage of a share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income

	Fair value of each PS (\$)	Expected volatility	Grant date	Price at grant date	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of PS	Total value of PS(\$)	Share based payment expense (\$)
Class A	\$0.15	N/A	4/09/2019	\$0.15	4/09/2020	N/A	N/A	4,400,000	660,000	-(i)
Class B	\$0.15	N/A	4/09/2019	\$0.15	4/09/2021	N/A	N/A	4,400,000	660,000	496,989
Class C	\$0.15	N/A	4/09/2019	\$0.15	4/09/2022	N/A	N/A	4,400,000	660,000	255,028

- (iv) Class A has no share-based payment expense for the year due to performance shares vested in the prior year.

- (v) On 10 September 2020, 25 November 2020, and 24 June 2021, shareholder approval was obtained to issue total of 521,304 warrants to EIT InnoEnergy. On 16 September 2020, and on 8 January 2021, the Company issued 479,519 and 32,928 warrants respectively, with 8,857 warrants issued on 9 August 2021, subsequent to 30 June 2021. The warrants can only be exercised after 1 September 2021 and at any time on or prior to expiry. These warrants were valued using a Black-Scholes valuation, with the valuation model inputs used to determine the fair value at grant date as follows:

Grant Date	10/09/2020	25/11/2020	24/06/2021
Expiry Date	16/09/2023	8/01/2023	9/08/2024
Share price at grant date	\$0.89	\$2.38	\$7.89

Exercise Price	\$0.00	\$0.00	\$0.00
Number of warrants	479,519	32,928	8,857
Fair value at grant date	\$0.88	\$2.38	\$7.89
Expected volatility	70%	70%	70%
Risk free rate	0.26%	0.11%	0.20%
Total value	\$426,772	\$78,369	\$69,873
Balance at the end of the year (No.)	479,519	32,928	8,857
Share based payment expense (\$)	349,658	18,103	6,075

- (vi) On 16 September 2020, the Company issued 1,125,250 unlisted options exercisable at \$0.80 on or before 18 months expiry following shareholder approval at a GM held on 10 September 2020. The grant of options was agreed and finalised in June 2020 when the Company completed a capital raise for \$4.8 million however were subject to shareholder approval prior to issue. These options were valued using a Black-Scholes valuation, with the valuation model inputs used to determine the fair value at grant date as follows:

Grant Date	10/09/2020
Expiry Date	16/03/2022
Share price at grant date	\$0.89
Exercise Price	\$0.80
Number of options	1,125,250
Fair value at grant date	\$0.33
Expected volatility	70%
Risk free rate	0.26%
Total value	\$369,757
Share based payment expense (\$)	\$369,757
Exercised	1,125,250
Balance at the end of the year (No)	-

Accounting Policy

Equity-settled and cash-settled share-based compensation benefits are provided to Key Management Personnel and employees.

Equity-settled transactions are awards of shares, or options over shares, which are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using an appropriate valuation model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the consolidated entity receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions are recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest

and the expired portion of the vesting period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying an appropriate valuation model, taking into consideration the terms and conditions on which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- (e) During the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- (f) From the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore, any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the consolidated entity or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the consolidated entity or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

NOTE 20 RELATED PARTY DISCLOSURE

(g) Key Management Personnel Compensation

The aggregate compensation made to directors and other members of key management personnel of the consolidated entity is set out below.

The aggregate compensation made to directors and other members of key management personnel of the consolidated entity is set out below.

	2021	2020
	\$	\$
Short-term benefits	1,124,701	471,534
Post-employment benefits	52,232	20,443
Share-based payments	4,017,627	384,616
	<u>5,194,560</u>	<u>876,593</u>

(h) Transactions with related parties

Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

During the financial year, payments for corporate advisory services outside of Australia of \$45,000 (2020: \$73,185) were made to Viaticus Capital, a related party of Mr Rezos. Viaticus Capital also received fees of \$49,256 (2020: \$18,000) for capital raising fees associated with a placement undertaken in year ending 30 June 2021. The outstanding balance to Viaticus Capital at 30 June 2021 was \$68,836 (2020: \$33,000). The corporate advisory services agreement with Viaticus Capital entered into in 2018 was amended by mutual agreement during the reporting period to exclude any capital raising, M&A or related services.

Dr Kreuter was CEO of Geothermal Group Germany GmbH and GeoThermal Engineering GmbH (GeoT). GeoThermal Engineering GmbH provides engineering services to Vulcan Energie Ressourcen GmbH, wholly sub of the Vulcan Energy Resources Ltd. During the financial year, Geothermal Engineering received €736,609 or A\$1,176,710 from Vulcan Energie Ressourcen GmbH (2020: €77,035 or A\$130,128). There were no amounts outstanding at 30 June 2021 (2020: Nil).

During the financial year payments for consulting fees of \$43,044 (2020: Nil) were made to Alto Group Inc., a related party of Ms Annie Liu. The outstanding balance to Alto Group Inc., at 30 June 2021 was \$17,493 (2020: Nil).

There were no other related party transactions during the previous financial year.

There were no loans made to any KMP during the year ended 30 June 2021 (2020: Nil).

Other than the above, there were no other transactions with KMP during the year ended 30 June 2021.

NOTE 21 COMMITMENTS

Below are the commitments in relation to its exploration and evaluation assets:

	2021	2020
	\$	\$
Within one year	1,589,594	163,639
One to five years	2,155,391	163,639
	<u>3,744,985</u>	<u>327,278</u>

NOTE 22 CONTINGENCIES

As part of the acquisition of Vulcan Lithium Project, the Company agrees to pay the following by way of deferred consideration of remaining 4,400,000 (13,200,000 less 8,800,000) Performance Shares to be issued to the Vendors, which will each convert into a Share on a one for one basis on satisfaction the following milestones:

(i.) 4,400,000 Shares on the Company announcing that it has secured an off-take agreement representing a minimum of 30% of production volume over a three year term, or a downstream joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within 36 months of completion of the Acquisition (Milestone 3), (together, the Deferred Consideration).

Other than the above, there are no other contingent assets or contingent liabilities as at 30 June 2021.

NOTE 23 AUDITOR'S REMUNERATION

2021	2020

	\$	\$
Amounts received or due and receivable by RSM Australia Partners for:		
Audit or review of the annual financial report	59,000	31,500
Other services - RSM Australia Pty Ltd for:		
– Corporate Finance	1,500	-
	60,500	31,500

NOTE 24 ACCUMULATED LOSSES

	2021 \$	2020 \$
Balance at beginning of the year	(4,670,672)	(1,117,313)
Loss after income tax for the year	(10,744,614)	(3,553,359)
Balance at end of the year	(15,415,286)	(4,670,672)

NOTE 25 INVESTMENT IN CONTROLLED ENTITIES

	Principal Activities	Country Incorporation	of Ownership Interest	Ownership Interest
			2021 %	2020 %
Kuniko Limited	Exploration	Australia	100	100
Vulcan Energy Resources Europe Pty Ltd	Exploration	Australia	100	100
Vulcan Energie Ressourcen GmbH	Exploration	Germany	100	100

NOTE 26 PARENT ENTITY

	2021 \$	2020 \$
Statement of Financial Position		
ASSETS		
Current Assets	114,598,014	6,330,432
Non-Current Assets	14,989,640	2,745,876
TOTAL ASSETS	129,587,654	9,076,308
LIABILITIES		
Current Liabilities	603,110	190,270
TOTAL LIABILITIES	603,110	190,270
EQUITY		
Issued Capital	136,500,372	11,836,741
Reserves	8,021,740	1,741,986
Accumulated losses	(15,537,568)	(4,692,689)
TOTAL EQUITY	128,984,544	8,886,038

Statement of Profit or Loss and other comprehensive income

Loss for the year	10,844,879	(3,575,376)
Total Comprehensive Income	<u>10,844,879</u>	<u>(3,575,376)</u>

Contingent liabilities

Other than disclosed at Note 22, the parent entity has no other contingent assets or contingent liabilities as at 30 June 2021 and 30 June 2020.

Capital commitments - Property, plant and equipment

The parent entity had no capital commitments for property, plant and equipment as at 30 June 2021 and 30 June 2020.

Exploration commitments

The parent entity has no exploration commitments.

Significant accounting policies

The accounting policies of the parent entity are consistent with those of the consolidated entity, as disclosed in the financial statements, except for the following:

Investments in subsidiaries are accounted for at cost, less any impairment, in the parent entity.

NOTE 27 EVENTS AFTER THE REPORTING DATE

- (i) On 6 July 2021, the Company issued 336,396 shares and 91,174 performance shares in the Company, comprising:
- 11,396 shares and 91,174 performance shares, being the security consideration for the acquisition of Global Geothermal Holding UG (a company incorporated under the laws of Germany); and
 - 325,000 shares (216,667 of which are escrowed until 6 July 2022) being the share consideration for the acquisition of Global Engineering & Consulting Company GmbH (a company incorporated under the laws of Germany),

in both cases, as approved by shareholders at a General Meeting held on 24 June 2021.

The company also completed on the same day the acquisition of Geothermal Engineering GmbH.

On 12 July 2021, the Company announced that new exploration license for geothermal energy, geothermal heat, brine and lithium has been granted in the Upper Rhine Valley for a three year period. The license covers 108km² of area considered by the Company to be prospective for geothermal and lithium brine.

On 13 July 2021, Markus Ritzauer was appointed as CFO of Vulcan's German operations, effective from 1 September 2021. Mr. Ritzauer has over 20 years' experience in finance roles within the chemicals industry. He is currently Head of Finance at Currenta, a chemical park service provider in Germany formerly part of Bayer.

On 19 July 2021, the Company signed a binding lithium hydroxide offtake term sheet ("Agreement") with LG Energy Solution ("LGES"). LGES is the largest producer of lithium-ion batteries for electric vehicles in the world and supplies its products to top global OEMs. The Agreement is for an initial five-year term which can be extended by a further five years, with start of commercial delivery set for 2025. LGES to purchase 5,000 metric tonnes of battery grade lithium hydroxide for the first year of the supply term, ramping up to 10,000 metric tonnes per year during the second and subsequent years of the supply term. Pricing will be based on market prices for lithium hydroxide. Conditions

precedent to start of commercial delivery include the execution of a definitive formal offtake agreement on materially the same terms by end November 2021, successful start of commercial operation and full product qualification.

On 27 July 2021, the Company announced, further to its announcement of 21 April 2021, the close of the \$7.88 million IPO raise for the spin out of its wholly owned subsidiary Kuniko Limited. The Company is expecting the spin off and listing of Kuniko Limited to complete on 24 August 2021. Following the spin off Vulcan will retain a 25.85% holding in Kuniko Limited.

On 2 August 2021, the Company and Renault Group, top automotive player and pioneer in the European EV market have signed a lithium offtake term sheet. The agreement is for an initial five-year term which can be extended if mutually agreed, with a start of commercial delivery set for 2026. In line with Renault Group's ambition to offer 'made in Europe' cars, and following the launch of Renault ElectriCity – the most competitive and efficient production unit for electric vehicles in Europe – the Group will purchase between 6,000 to 17,000 metric tonnes per year of battery grade lithium chemicals produced in Germany by Vulcan.

On 4 August 2021, the Company announced that, after having originally commissioned the world's first Life Cycle Assessment (LCA) and global study on the environmental footprint of lithium hydroxide (LHM) production, it again commissioned Minviro Ltd., to update its independent LCA based on more recent data from Vulcan's Pre-Feasibility Study (PFS). Results of the updated LCA estimates a negative 2.9t of CO₂ emitted per tonne of LHM to be produced from Vulcan's Zero Carbon Lithium™ Project, including Scope 1, 2 and 3 emissions. Vulcan's negative CO₂ emission intensity is a product of the significant impact offset generated by renewable geothermal energy production as well as use of geothermal heat to drive lithium processing, and Vulcan's industry-leading move to strictly exclude fossil fuels as an energy source from its planned operations. According to public data, this result confirms that Vulcan's Zero Carbon Lithium™ Project has the lowest planned carbon footprint in the world compared to any LCA results previously published in the lithium industry.

On 9 August 2021, the Company announced that it is to apply for dual listing on the regulated market of the Frankfurt Stock Exchange (FSE), in the Prime Standard market segment, which has the very highest transparency requirements of all segments on the FSE.

On 19 August 2021 the Company announced it had signed a partnership agreement with Mr. Nico Rosberg and the Rosberg X Racing (RXR) electric racing team. The Partnership Agreement sees Vulcan Energy becoming an Official Partner of RXR and RXR and Mr Rosberg becoming shareholders in Vulcan, in return for advertising and promotional rights for the 2021 and 2022 racing seasons.

On 23 August 2021 the Company announced it had signed BNP Paribas as financial advisor towards financing the Zero Carbon Lithium™ Project.

On 24 August 2021 Kuniko Limited successfully listed on the Australian Stock Exchange (ASX:KNI), thereby completing the spin-off of the Norwegian assets announced in June 2021, with the Company retaining a 25.85% shareholding.

Apart from the above, no other matter or circumstance has arisen since 30 June 2021 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

Directors' Declaration

In the Directors' opinion:

- (a) The financial statements and accompanying notes are in accordance with the Corporations Act 2001, including:
 - (i) complying with Australian Accounting Standards, the Corporations Regulations 2001 and other mandatory professional reporting requirements; and
 - (ii) giving a true and fair view of the consolidated entity's financial position as at 30 June 2021 and of its performance for the financial year ended on that date.
- (b) The financial statements and notes comply with International Financial Reporting Standards.
- (c) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The Directors have been given the declarations required by section 295A of the Corporations Act 2001.

This declaration is made in accordance with a resolution of the Board of Directors made pursuant to section 295(5)(a) of the Corporations Act 2001 and is signed for and on behalf of the Directors by:

A handwritten signature in black ink, appearing to read 'Gavin Rezos', with a stylized flourish at the end.

Gavin Rezos
Chairman
2 September 2021

17.5.6 Independent Auditor's Report

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF VULCAN ENERGY RESOURCES LIMITED

Opinion

We have audited the financial report of Vulcan Energy Resources Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 30 June 2021, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- (i) Giving a true and fair view of the Group's financial position as at 30 June 2021 and of its financial performance for the year then ended; and
- (ii) Complying with Australian Accounting Standards and the Corporations Regulations 2001.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report. We are independent of the Group in accordance with the auditor independence requirements of the Corporations Act 2001 and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the Corporations Act 2001, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit Matter	How our audit addressed this matter
Exploration and Evaluation Expenditure Refer to Note 10 in the financial statements	
The Group has capitalised exploration and evaluation expenditure with a carrying value of \$13,793,798 as at 30 June 2021.	Our audit procedures included: Ensuring that the right to tenure of the area of interest was current;
We considered this to be a key audit matter due to the significant management judgments	• Agreeing a sample of additions to supporting documentation and ensuring the amounts are capital in

involved in assessing the carrying value of the asset including: • Determination of whether the exploration and evaluation expenditure can be associated with finding specific mineral resources and the basis on which that expenditure is allocated to an area of interest; • Assessing whether exploration activities have reached a stage at which the existence of economically recoverable reserves may be determined; and • Assessing whether any indicators of impairment are present and if so, judgement applied to determine and quantify any impairment loss.	nature and relate to the area of interest; • Enquiring with management and reviewing budgets and other documentation as evidence that active and significant operations in, or relation to, the area of interest will be continued in the future; • Assessing and evaluating management's determination that exploration activities have not yet progressed to the stage where the existence or otherwise of economically recoverable reserves may be determined; • Assessing and evaluating management's assessment of whether indicators of impairment existed at the reporting date; and • Assessing that the impairment expense recognised for the year ended was appropriately calculated.
<i>Share-based payments</i> Refer to Note 19 in the financial statements	
During the year, the Group issued options, warrants and performance rights to key management personnel, employees, advisors and suppliers. Management have accounted for these instruments in accordance with AASB 2 Share-Based Payments. We have considered this to be a key audit matter because: • The complexity of the accounting required to value these instruments; • Management judgement is required to determine the probability of vesting conditions of these instruments and the inputs used in the valuation model to value these instruments; and • The recognition of the share-based payment expense is complex due to the variety of vesting conditions attached to these instruments.	Our audit procedures included: • Obtaining an understanding of the terms and conditions of the instruments issued; • Reviewing the completeness of the instruments issued at reporting date; • Reviewing management's valuation methodology; • Reviewing the key inputs used for each instrument in the valuation model; • Critically assessing management's determination of the vesting probability of each instrument; • Recalculating the value of the share-based payment expense to be recognised in consolidated statement of profit or loss and other comprehensive income; and • Reviewing the appropriateness of disclosures in the financial statements.

Other Information

The directors are responsible for the other information. The other information comprises the information included in the Group's annual report for the year ended 30 June 2021 but does not include the financial report and the auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: https://www.auasb.gov.au/auditors_responsibilities/ar2.pdf. This description forms part of our auditor's report.

Report on the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in the directors' report for the year ended 30 June 2021.

In our opinion, the Remuneration Report of Vulcan Energy Resources Limited, for the year ended 30 June 2021, complies with section 300A of the Corporations Act 2001.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

RSM AUSTRALIA PARTNERS

Perth, WA

TUTU PHONG

Dated: 2 September 2021

Partner

17. ANNEX: COMPETENT PERSON REPORT



Vulcan Independent Expert Report

Vulcan Energy Resources Ltd.

Effective 13 December 2024

Project Number 24542



GLJ Ltd
1920, 401 - 9 Avenue SW
Calgary Alberta, Canada T2P 3C5

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1 OVERVIEW

This Independent Expert Report (“**IER**” or “**Competent Person Report**”) has been prepared by Competent Persons (“**CPs**”) from GLJ Ltd. (“**GLJ**”) at the request of Vulcan Energy Resources Ltd. (the “**Company**”, and together with its consolidated subsidiaries, the “**Vulcan Group**”). The Company is a public company founded in 2018 with its corporate headquarters in Perth, Western Australia, and geothermal energy operations and lithium development projects in Germany. The Company is listed on the Australian Securities Exchange (“**ASX**”) since 30 May 2018 and in the regulated market (Prime Standard) of the Frankfurt Stock Exchange since 15 February 2022.

Vulcan Group’s Phase One Lionheart Project (the “**Project**”) aims to decarbonise lithium production with the co-production of renewable geothermal energy on a commercial scale. Vulcan Group is a producer of geothermal renewable power in the Upper Rhine Valley of Germany. The first phase of Vulcan Group’s Project is designated as “Lionheart” (“**Lionheart**” or “**Phase One**”) and proposes to provide geothermal renewable electricity and heat to local communities, as well as the production of lithium. Vulcan Group’s licence areas in the Upper Rhine Valley, Germany, are strategically placed in the heart of the European electric vehicle (“**EV**”) market, providing close access to the EV supply chain, and the infrastructure supporting the automobile industry.

Vulcan Group has built a large team that includes scientists, geoscientists, engineers and commercial specialists in the fields of lithium chemicals, subsurface characterization, field development and geothermal renewable energy. Vulcan Group has binding lithium offtake agreements with some of the largest cathode, battery, and automakers in the world. As a company whose business model for the Project combines a carbon neutral extraction process with renewable energy generation, Vulcan Group has Environment, Social and Governance (“**ESG**”) considerations deeply embedded in its corporate strategy.

PROJECT OVERVIEW

In November 2023, Vulcan Group completed a Bridging Engineering Study (“**Bridging Study**” or “**BES**”) on the Phase One commercial development of its Project (Figure 1.1), located in the Upper Rhine Graben (“**URG**”). The URG is a geothermally hot and deep subsurface brine field which is enriched in lithium. Vulcan Group plans to develop the dual production of renewable energy and lithium from this deep brine source by combining multiple processes with geothermal renewable energy (heat and power), lithium production and lithium hydroxide monohydrate (“**LHM**”) conversion. Pursuant to the Bridging Study, Phase One includes the construction of a geothermal plant, a lithium extraction plant (“**LEP**”), and a central lithium plant (“**CLP**”) with a production target capacity of approximately 24,000 metric tonnes per annum (“**tpa**”) of lithium monohydrate (“**LHM**”), along with over 275 gigawatt hours (“**GWh**”) per annum (“**GWh/a**”) of renewable power production capacity and over 560 GWh/a of renewable heat production capacity. Vulcan Group intends to develop further phases across its licence area, as the Company plans to grow production in a staged, modular fashion, however the development of any further expansion beyond Phase One remains subject to the availability of funding, and the exact timing is still to be defined.

BUILDING RENEWABLE ENERGY AND LITHIUM CHEMICALS PRODUCTION

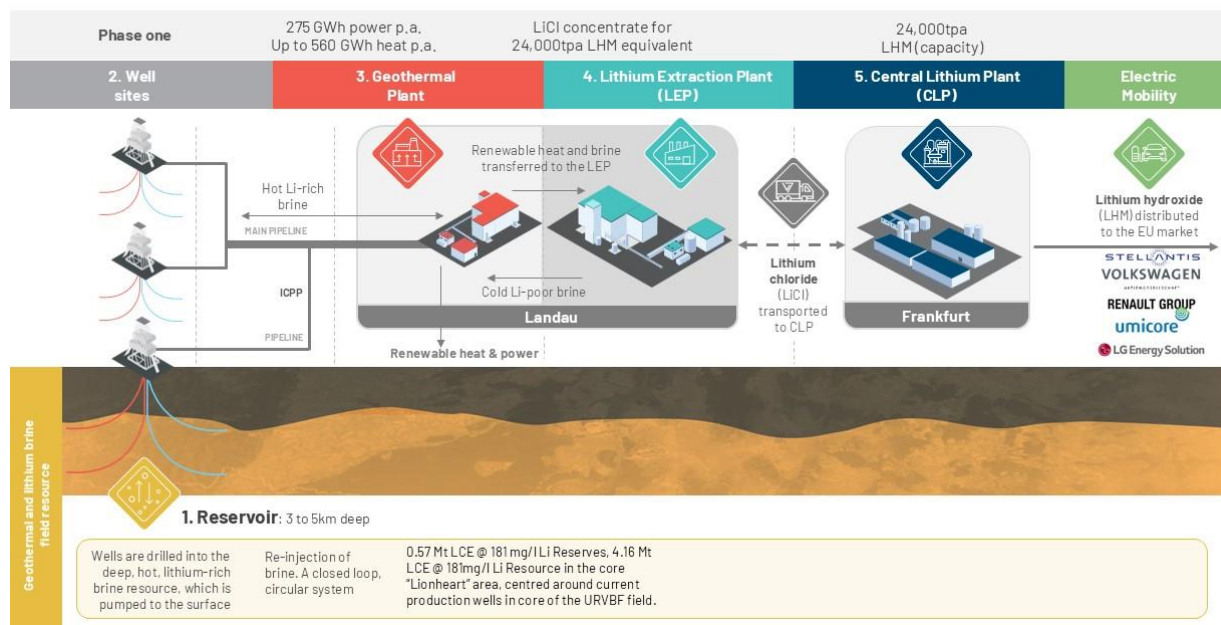


Figure 1.1: Representation of Vulcan Group's Phase One infrastructure and Process Plan

The Bridging Study was an optimisation of the Definitive Feasibility Study ("DFS") that was announced on the ASX in February 2023. The Bridging Study was conducted across the entire integrated Phase One development, with updates on the sub-surface geology, field development planning, mineral resource and ore reserve estimation, well site infrastructure (including well design), interconnected pipeline and power network ("ICPP"), geothermal organic rankine cycle ("ORC") plant, lithium extraction plant ("LEP"), and central lithium plant ("CLP") engineering and design. Vulcan Group's in-house team of geologists and reservoir engineers led the sub-surface work, with review, audit and sign-off of Mineral Resources and Ore Reserves by energy industry specialists GLJ Ltd, and external review of Field Development Planning by PetroAus Pty Ltd. Vulcan Group's in-house engineering team led the work on the surface piping and geothermal plant design. Hatch Ltd led the LEP and CLP design, guided by Vulcan Group's in-house lithium chemistry and chemical engineering team, and backed up by tens of thousands of hours of test-work from Vulcan Group's pilot plants, as well as laboratory test-work both internally and externally. The purpose of the Bridging Study was to advance the engineering to a Class 2 Estimate, sufficient to secure key major contracts, and to secure financing for the Project.

Since the publishing of the Bridging Study updates, Vulcan Group has continued to develop, progress and de-risk the project in parallel to confirming financing, termed the "validation phase". The developments since the Bridging Study have continued to reduce permitting, technical and execution risk, securing economic value, the key updates are listed below and described in Figure 1.2. In parallel a review has been undertaken on the Project by a third-party and has been subjected to a significant level of due diligence from external parties for the purposes of debt and equity financing, the findings from which have been incorporated into the Project.

Improved Field Development Plan:

- Phase One field development plan (“**FDP**”) now only focused on mainly Proved Reserves in the core, producing “brownfields” Lionheart development area, providing a reduction of project risk
- Improved Proved Ore Reserves outcome from Lionheart alone (196kt to 318kt lithium carbonate equivalent (“**LCE**”) compared to DFS, resulting from improved static and dynamic modelling, new 3D seismic and optimisation of well placement
- Improved production plateau results in higher estimated revenue
- Case map implemented showing positive economic results across all outcomes, even under low case conditions
- Hybrid injection model allows an optimised FDP and can manage risk during Lionheart execution
- Since the completion of the Bridging Study, Vulcan Group has validated its subsurface well-positioning on final PreSDM seismic data processing confirming the subsurface structural model, well-planning and further increasing confidence in achieving production targets

Clarity of Interfaces and simplified execution:

- Onboarding key technology partners for the major process technology packages, simplifying process interfaces, and creating ownership for the complete flowsheet with process guarantees
- Onboarding of the proposed engineering, procurement and construction management (“**EPCM**”) integration partner and commencing joint engineering and execution with the technology partners.
- Confirming technical interface boundaries, addressing scope movements and known gaps from the BES phase, incorporating them into the execution model at end of validation (“**EOV**”).

Permitting Progress:

- Approval of the D12 Land Development Plan for Landau confirms that the project is supported by the City of Landau;
- Receiving key permitting approvals (incl. required preliminary EIA, Main Operating Plan and Special Operating Plans) to construct the first new production wellsite;
- Progress of permitting for the key assets in Landau and Frankfurt to schedule, continues to maintain the Phase One timeline and de-risk the project.

CAPEX Certainty:

- General maturation of the design, which Vulcan believes will reduce technical risk and improve scope definition
- Clarification of contracting partners for EPCM and Technology partners has led to improvements in CAPEX certainty, with validation of the EPCM scope, supported by firm bid information for technology packages, the ORC and VULSORB® production;
- Actual information from the construction of the first wellsite; supported by matured well design and drilling service packages bids
- Maturation of the ICPP scope design, including confirmation of the capacity and routing, improving CAPEX certainty and reducing project risk

Schedule Progressed, continuing to align with private and public funding paths:

- Vulcan has continued to maintain schedule focussing on critical activities to de-risk the project, namely land acquisition, permitting engineering and submission, drilling readiness, process and long lead definition / procurement
- Improved robustness of schedule with key risks now better understood (land acquisition, permitting approach, execution timing risks) and key opportunities captured
- Re-Alignment of Phase One execution schedule with Public Funding schemes to maximise ability to receive governmental support
- Maintaining a clear plan to move from EOJ period, continuing with a period of continued maturation activity under limited notices to proceed (“**LNTP**”), through to award of major engineering, procurement and construction (“**EPC**”) as well as engineering, procurement and construction management (“**EPCM**”) contracts in line with financing completion

No change to project outcomes, with greater certainty:

- No change in the output: same LHM capacity targeted
- Further selection of key technology offerings (JordProxa) reducing technical risk and improving cost certainty
- Onboarding key contractors into the project, validating the Bridging Study work and Vulcan Group’s own plans and estimates

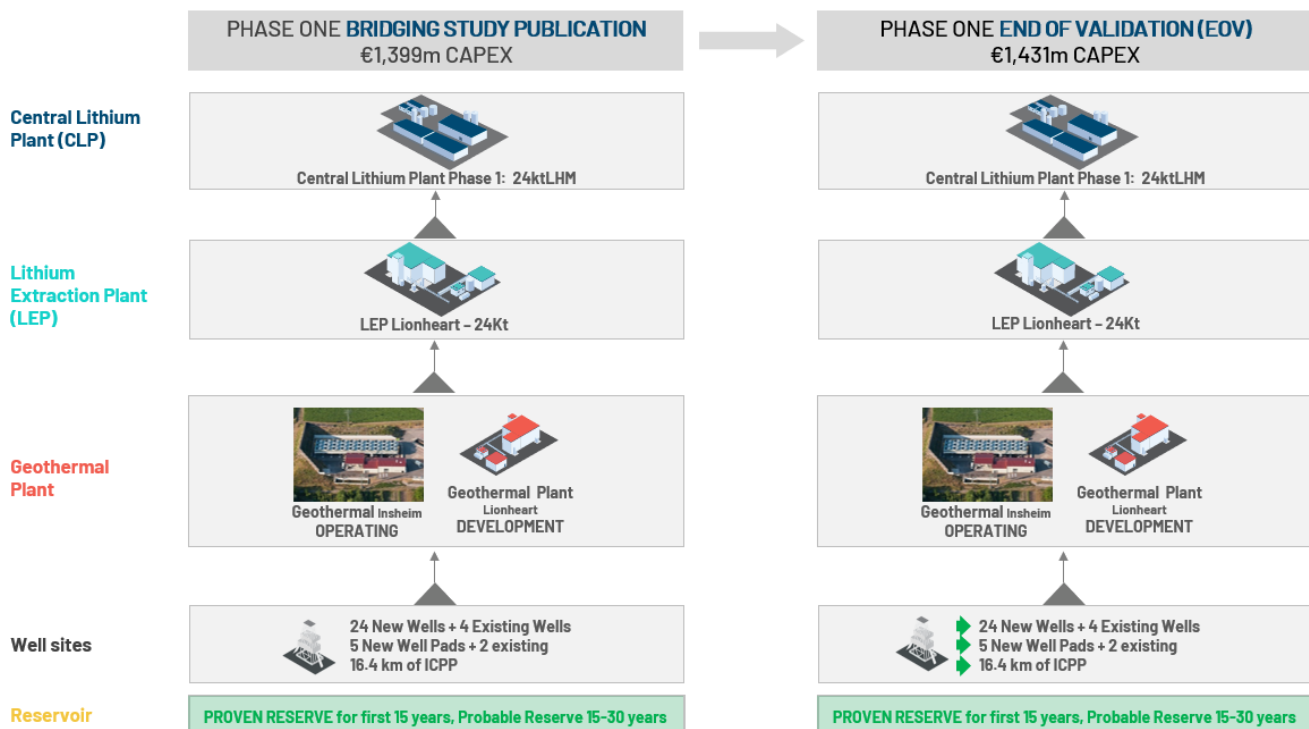


Figure 1.2: Continued Design Development & De-Risking of Phase One Project

1.1 LOCATION, PROPERTY DESCRIPTION AND OWNERSHIP

The upstream area for Phase One of the Project comprises the “Lionheart” development area (Figure 1.3) consisting of three neighbouring licence areas in the state of Rhineland Palatinate. Brine production from these licences will see lithium chloride (“**LiCl**”) extracted, concentrated and purified before being transported to the CLP, at the downstream lithium chemicals production site at the Hoechst Chemical Park near Frankfurt, to which Vulcan Group has secured exclusive access. Within the upstream Phase One development area, Vulcan Group holds a 100% interest in the operating Insheim licence, including the operational geothermal wells and plant. At the time of the Bridging Engineering Study, Vulcan had a brine offtake agreement in place to access brine from the geothermal wells and plant in the Landau-South permit, as well as a joint venture agreement to develop another Project area in Landau-South. At the end of September 2024, Vulcan entered into an agreement to acquire geox GmbH, including the existing wells and power plant at Landau, which upon completion will allow Vulcan to streamline operations moving forward. It also has an agreement to exclusively develop an area within the Rift licence neighbouring Insheim for Phase One, in return for a production royalty.

The Project area is in the Upper Rhine Graben Brine Field (“**URGBF**”) (Figure 1.4) a sub-surface geothermal-lithium brine reservoir on the border between Germany and France. The area is located centrally in Europe and is highly developed with many rural and urban centres which are interconnected via roadways, freeways, and railways. This proximity to urban and rural centres presents a significant opportunity to provide sustainable renewable energy and heat. The Rhine River dominates the region as a major shipping route, and access to both sides of the river is possible, with many bridges. There are well developed industrial areas for automotive manufacturing, chemical industry, and related service sectors, including the Opel manufacturing plants owned by one of Vulcan Group’s lithium offtakers, Stellantis.

The URGBF is a graben system containing a consistent geothermal lithium reservoir which, within the Phase One development area and based on Vulcan Group’s data, has an average lithium grade of 181 mg/l Li. The deep sub-surface reservoirs targeted for lithium brine production are well explored in the region and have sufficiently high temperatures to support geothermal co-production with lithium recovery. There is a long history of deep well development in the URGBF, dating back to the 1980s, with many wells being developed for either hydrocarbon potential or geothermal potential (Figure 1.5). Many of the wells historically drilled in the URGBF have been shallower for the purpose of oil and gas production. Notable geothermal work includes research and development (“**R&D**”) projects at Bruchsal, Germany, and Soultz, France, which have tested various geothermal power generation technologies with deep geothermal source wells. Within the planned development area, Vulcan Group already has deep geothermal wells operating at the commercial geothermal energy plant at Insheim, and at the neighbouring Landau Sued geothermal plant, where the wells are undergoing refurbishment.

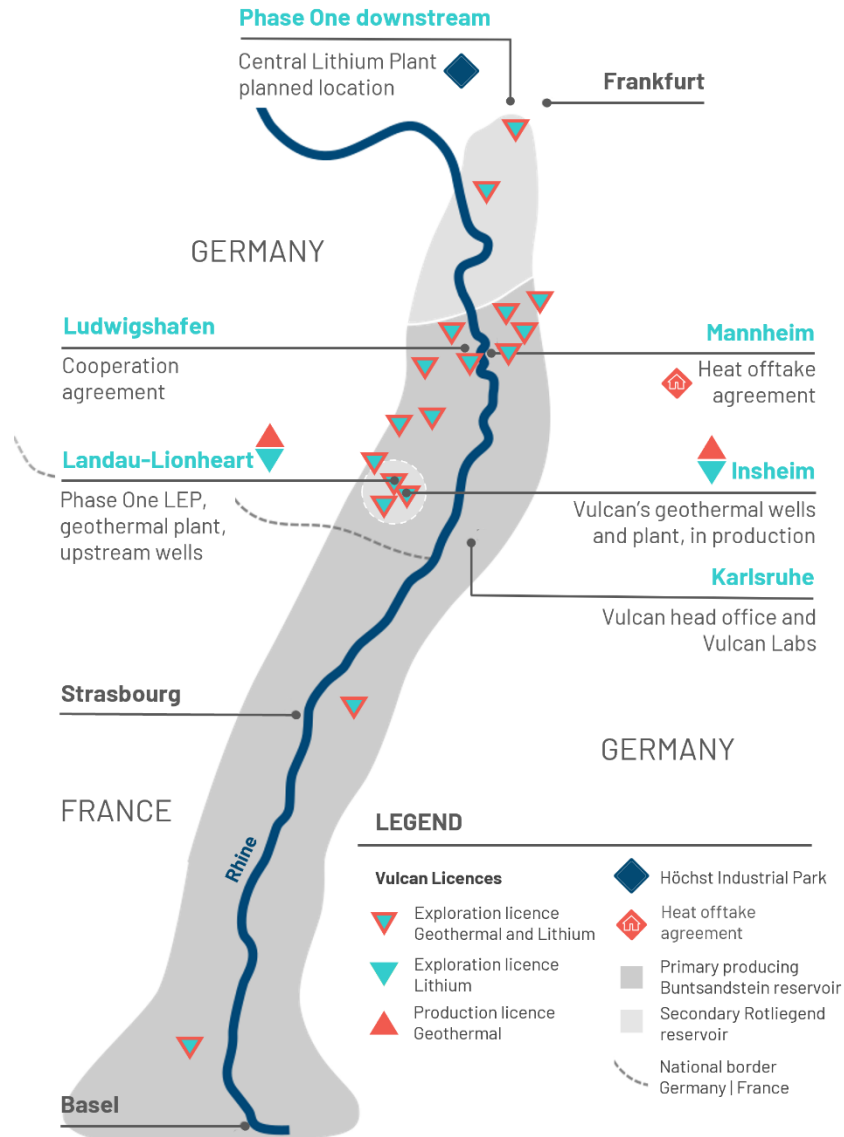


Figure 1.3: Overview of the Project Area for Phase One



Figure 1.4: Location of the Upper Rhine Graben (light blue) in Germany (dark blue) (Source: Geopotenziale EU n.d.)

To date, Vulcan Group holds a total of 17 licences, being 16 exploration licences and one production licence including having access to one exploration licence, covering a total area of over 1,771 km² in the Upper Rhine Valley of Germany for areas within the German states of Baden-Wuerttemberg, Rhineland-Palatinate and Hesse, and an additional exploration licence in the French region of the Upper Rhine Valley, covering an area of 463 km² around the city of Mulhouse, France. Vulcan Group has acquired the geothermal brine and lithium rights (licences) in Germany through direct application to the respective mining authorities of the German states of Rhineland Palatinate, Baden-Wuerttemberg, and Hesse. All exploration licences were granted pursuant to the German Federal Mining Act (*Bundesberggesetz: BBergG*) for the purpose of commercial exploration of mining-free Mineral Resources: geothermal brine and lithium. Vulcan Group has acquired the lithium exploration and geothermal production licence at Insheim with 100% ownership.¹

¹ See section 8.5.4 of the Prospectus (and section 7.5.4 of the Information Memorandum) for further information

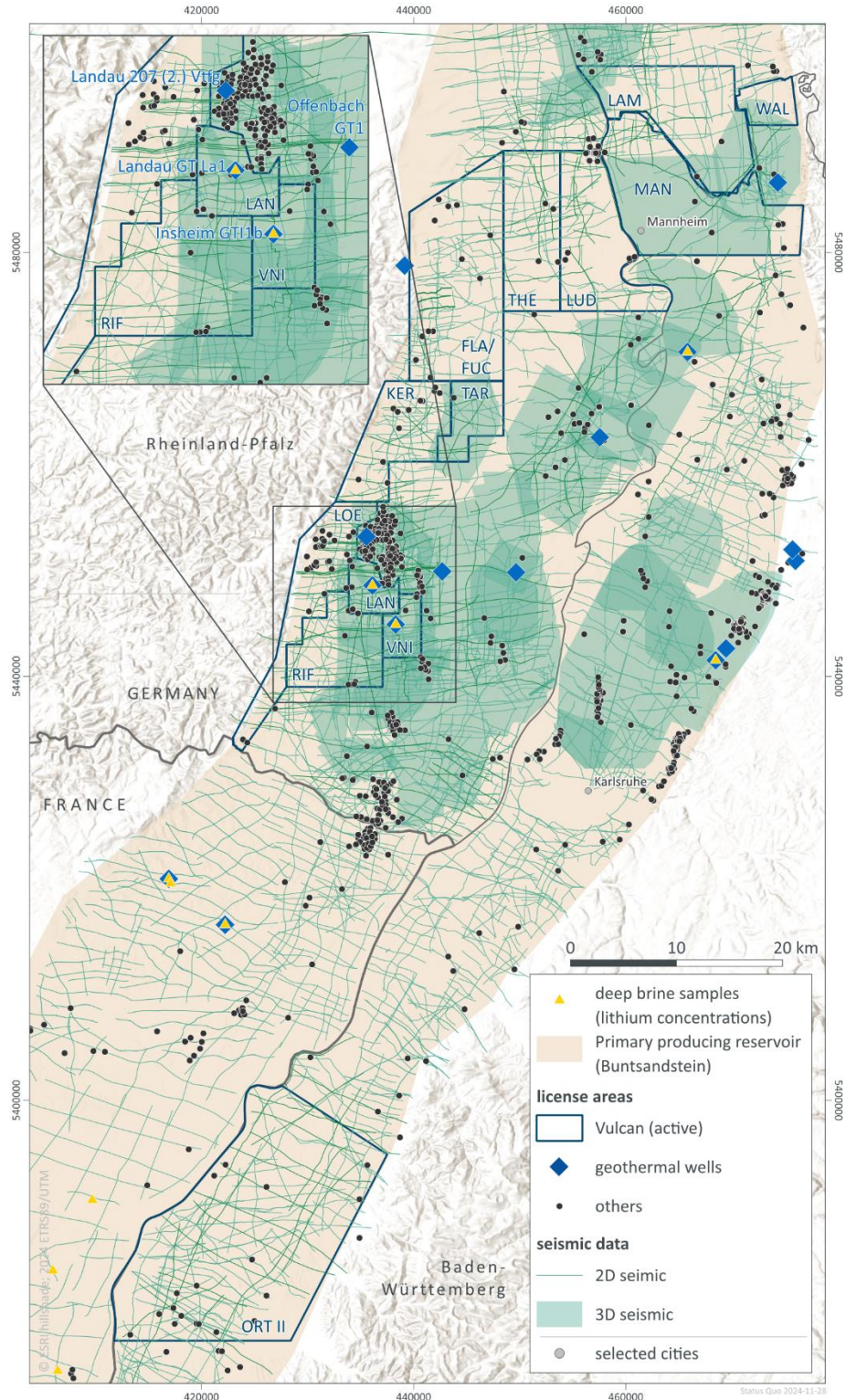


Figure 1.5: Map of Vulcan Group's licenced areas in the central Upper Rhine Graben. Existing seismic data sets and well penetrations within the Upper Rhine Graben Brine Field, Germany (LAM: Lampertheim, MAN: Mannheim, LUD: Ludwig, THE: Therese, FLA: Flaggenturm, TAR: Taro, KER: Kerner, LEO: Löwenherz, VNI: Insheim, LAN: Landau-South, RIF: Rift Nord, CIG: Cigognes, ORT-II: Ortenau II. Other Vulcan Group licences and application to the north and south not shown).



Figure 1.6: Aerial Photograph of Vulcan Group's Natürliche Insheim Geothermal Plant

At Insheim (Figure 1.6), Vulcan Group currently operates the Natürliche Insheim geothermal plant, which has the capacity to produce up to 4.8 MW of renewable power and has been operating for over 12 years. There are two operating wells located at this plant, one for production of the 167 °C hot brine and one for reinjection of cooled brine. The wells were drilled between 2009 and 2010. The plant has been in operation since 2012. There is a second geothermal plant in the region at Landau-South which is operated by with geox GmbH ("**geox**") (the operating company).

Geox is currently owned by IKAV Invest S.à.r.l ("**IKAV**"), an international asset management group focused on renewable energy and infrastructure projects. Vulcan and Geox/IKAV have been operating under two existing agreements over the Geox assets. Under the agreements, Vulcan was a party to a brine offtake agreement (subject to Vulcan expenditure milestones) with Geox and a Joint Venture agreement with IKAV for further geothermal drilling and development activities (also subject to Vulcan expenditure milestones). The acquisition of Geox, upon completion, will replace the existing agreements and enables Vulcan to simplify the operation of its geothermal brine production assets in its upstream development for the Project.

The production well was refurbished as part of a workover pursuant to the acquisition of geox. Vulcan will also install a heat exchanger to supply renewable district heating to the City of Landau in the short-term.

As part of its wider Project construction, Vulcan intends to dismantle the current geothermal power plant at geox, increase brine production from the licence area, and start supplying local consumers with renewable heating and power via its GLEP to be built in the local industrial park. Vulcan currently estimates 20% of Phase One upstream production will come from this licence area. In the process, Vulcan will also extract lithium chloride from the brine, as part of its wider Phase One operation, which will supply European automakers, including Stellantis. See the announcement entitled "Financing Progress Update" as released on the ASX on 27 September 2024 for further information.

Together, these licence areas comprise the “upstream” part of the Project delivering lithium chloride and geothermal renewable energy production for Phase One, designated as “Lionheart”. Vulcan Group is concluding negotiations to supply the local utility with renewable heat as part of Phase One and has been awarded a EUR 100 million Federal grant towards this development.

Vulcan Group plans to develop the licence areas in a phased modular approach. Phase One will be developed first, followed by future phases which are planned to be of similar size, in step out areas to the north and south. The Bridging Study addressed Phase One of the Project

Phase One of the Project plans for a central surface facility for geothermal energy and lithium extraction operations to be fed from multiple multi-well pads. Lithium extraction and processing will be conducted in two stages, starting at the upstream LEP and proceeding to a processing facility at Hoechst, near Frankfurt, the CLP. LHM product will be produced and sold from the CLP.

The Phase One area is well located, close to existing road infrastructure and within relatively flat valley terrain. The Phase One area is mixed land use with rural, urban, agricultural, industrial, and park land. The proximity to urban and rural centres presents a significant opportunity to provide sustainable renewable energy and heat. Vulcan Group has been diligent in ongoing consultation with local communities, landowners, and other stakeholders for project development, approvals and permitting.

1.2 GEOLOGY AND EXPLORATION

The URGBF is part of the Upper Rhine Graben in west-central Europe which forms part of the European Cenozoic Rift System (“**ECRIS**”) that extends from the North Sea, the Netherlands, western Germany, northern Switzerland, eastern France and down to the Mediterranean Sea. The Upper Rhine Graben (“**URG**”) extends from Frankfurt (Main) in the north to Basel in the south as a seismically active, morphologically distinct graben structure with a roughly 300 km long, 30 to 40 km wide lowland plain that drops from 200 m a.s.l. in the south to below 90 m a.s.l. in the north. It is surrounded by morphologically well-defined hills and mountains including: the Black Forest, the Vosges Mountains, Odin’s Forest, and the Palatinate Forest.

The URG can be subdivided into southern (Basel – Strasbourg), central (Strasbourg – Speyer) and northern (Speyer – Frankfurt) segments, each approximately 100 km long. Vulcan Group’s licences are located within the northern segment and northern and western part of the central segment. Due to its long history of hydrocarbon exploration and exploitation, most areas of the subsurface of the URG has been extensively investigated. Active geothermal power plants (Soultz, Rittershoffen, Landau, Insheim, Bruchsal) are located in the central segment. A geothermal district heating project was also established in Riehen (Switzerland) at the southernmost termination of the URG.

The focus of the Project in the URG is on aquifers associated with the Permo-carboniferous Rotliegend Group sandstone, the Triassic Buntsandstein Group sandstone, and the Middle Triassic Muschelkalk Formation, which is composed of carbonate sediments, collectively the Permo-Triassic strata (Figure 1.7). The Permo-Triassic strata underly all Phase One licences and are characterised as a laterally heterogeneous sandstone unit within a structurally complex rift basin.

The Rotliegend Group within the URG formed during the late stage of the Variscan Orogeny with local extension already happening. The Variscan Orogeny was accompanied by volcanism that led to the deposition of intrusive deposits into the basement, which is underlying the URG. Those intrusive deposits are believed to form an essential part of the lithium system. The actual rifting of the URG occurred during Cenozoic times, hence, the fault system is comparably young.

The Lower Rotliegend is comprised of alluvial-fan/fan-delta to fluvial-dominated Carboniferous and Permian sedimentary rocks. The basin infill subsequently transitioned from fluvial dominated to alluvial and eolian depositional environments during Upper Buntsandstein times.

The Lower Triassic Buntsandstein Group is subdivided into the Lower, Middle and Upper Buntsandstein subgroups as defined by distinct progradational and retrogradational fluvial sedimentary cycles. The Buntsandstein Group aquifer domain is defined as a confined, highly fractured sandstone aquifer that occurs between the fine grained Upper Buntsandstein Group and the coarse-grained base of the Lower Buntsandstein.

The Middle Triassic Muschelkalk represents the marine sedimentation that succeeds the fluvial deposition of the Buntsandstein. It consists of argillaceous dolomites and limestones as it represents a marine transgression. Karstification and a high degree of fractures increase its properties as an aquifer. Towards the top of the Muschelkalk, evaporitic sediments dominate.

The Upper Triassic Keuper is dominated by pelitic sediments and represents a marine regression which provides a top seal for the reservoirs of interest together with the pelitic dominated Tertiary overburden.

The Permo-Triassic strata that includes the Rotliegend, Buntsandstein, and Muschelkalk Groups as well as 100 m of the Variscan basement are the focus of the resource models for the Lionheart development area, and Ortenau. Only the Buntsandstein group strata have been considered for the Northern licence areas that include Mannheim, Ludwig, Therese, Flaggenturm/Fuchsmantel, and the western part of Kerner.

Brine aquifers within the Rotliegend Group and Buntsandstein Group are considered to have some degree of hydrogeological communication. This is particularly evident in zones with a high degree of faulting and fracturing in which brine fluid can flow throughout the Permo-Triassic strata and can also penetrate the underlying faulted, fractured and altered granitic basement and the overlying Muschelkalk zone. These fault/fracture zones generally contain hot brine and exhibit high fluid flow rates. Consequently, they are a prime target for geothermal development.

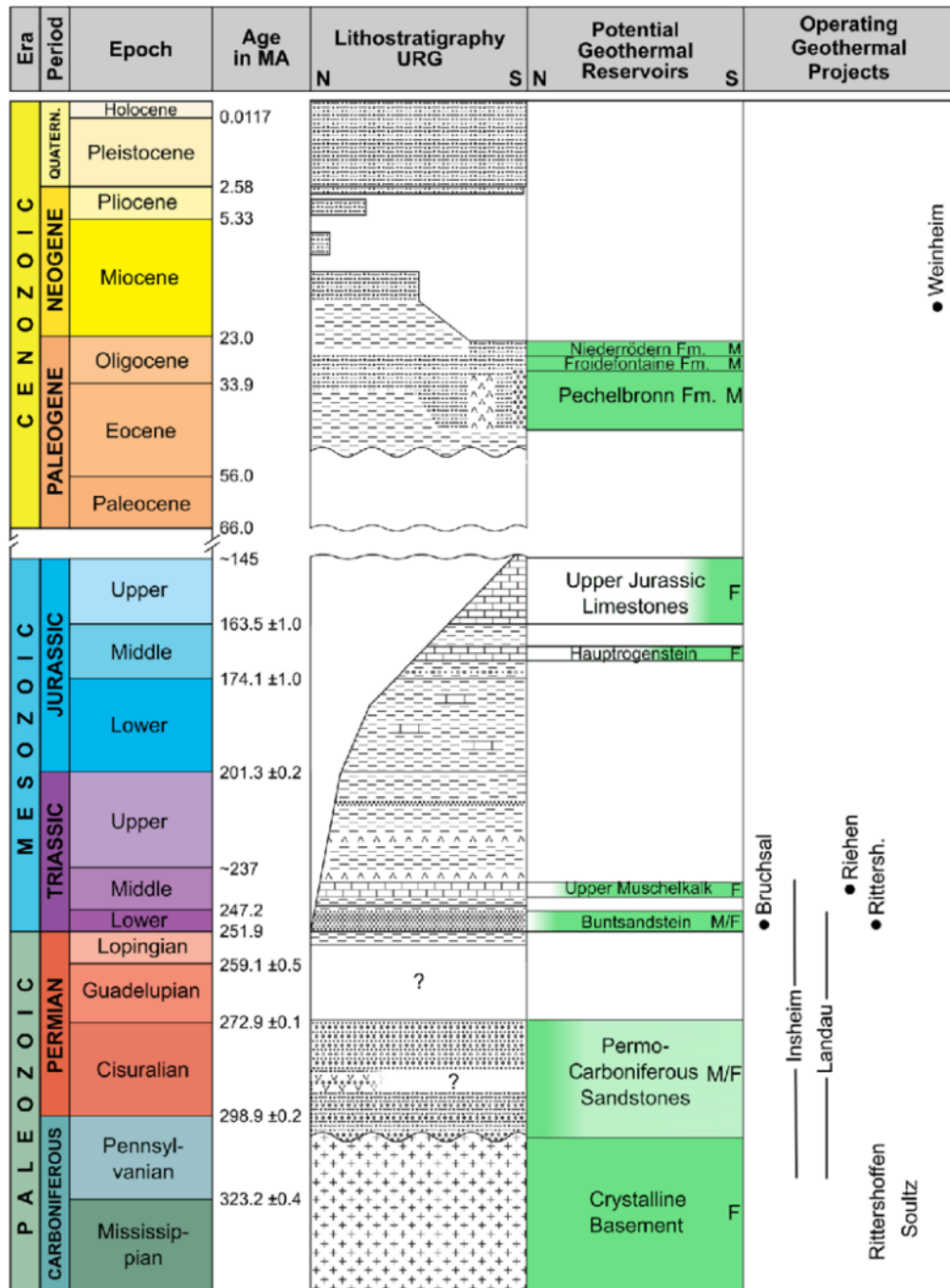


Figure 1.7: Stratigraphic Chart for the Permo-Triassic Strata in the URG (Frey et al, 2022)

Lithium is a silver-grey alkali metal that commonly occurs with other alkali metals (sodium, potassium, rubidium and caesium). The atomic number of lithium is three and the atomic weight is 6.94, making it the lightest metal and the least dense of all elements that are not gases at 20 °C (it is solid at 20 °C, with a density of 534 kg/m³). Lithium has excellent electrical conductivity (i.e., a low electrical resistivity of 9.5 mΩ·cm), making it ideal for battery manufacturing where lithium ions move from the negative electrode to the positive electrode during discharge and back when charging. Lithium imparts high mechanical strength and thermal shock resistance in ceramics and glass.

The average crustal abundance of lithium is approximately 17-20 parts per million (ppm) with higher abundances in igneous (28-30 ppm) and sedimentary rocks (53-60 ppm). The deep lithium-enriched brines of the URGBF originate from brine-rock interaction in the deep subsurface. The lithium enrichment process consists of the following components:

- Recharge of meteoric water with no lithium
- Downward flow of recharge water, to depth in the URG
- Water interaction with micaceous, lithium-bearing basement rocks below the pre-rift sediments in the URG (high lithium concentrations) basement rocks
- Upward flow of enriched brine (through fractures) into Rotliegend and Buntsandstein reservoirs
- Natural seismicity maintaining the fracture permeability (i.e., self-sealed fractures are frequently reopened)
- Prevention of significant upward loss of enriched fluid by a low permeability top seal
- Ongoing replacement (via recharge on the URG flanks) of any reservoir fluid that may be lost due to leakage through the upper seal (i.e., reservoir remains charged with lithium-enriched brines from basement)
- Ongoing convection of radiogenic heat from the crust maintains high temperature in the Rotliegend/Buntsandstein reservoir

The URG is one of the most intensively investigated continental rifts worldwide. Consequently, there exists a large amount of relevant data including borehole logs, extensive 2D seismic surveys and a steadily increasing body of 3D seismic surveys directly related to lithium and geothermal development. Additionally, there are many scientific publications and R&D Projects throughout the URG which provide a comprehensive understanding of this basin. Vulcan Group has acquired extensive existing 2D and 3D seismic data, offset well data, and well data from its own wells, across its Project areas.

Vulcan Group has also shot and acquired new 3D seismic data in the Lionheart, Mannheim and Lampertheim areas (Figure 1.8). Structural, geocellular and dynamic models were created from this data, tied to available well logs and production records from the Insheim and Landau geothermal wells. The seismic data is important for resolving the presence and lateral continuity of the key zones of interest of the Rotliegend, Buntsandstein and Muschelkalk successions, as well as the granitic basement.

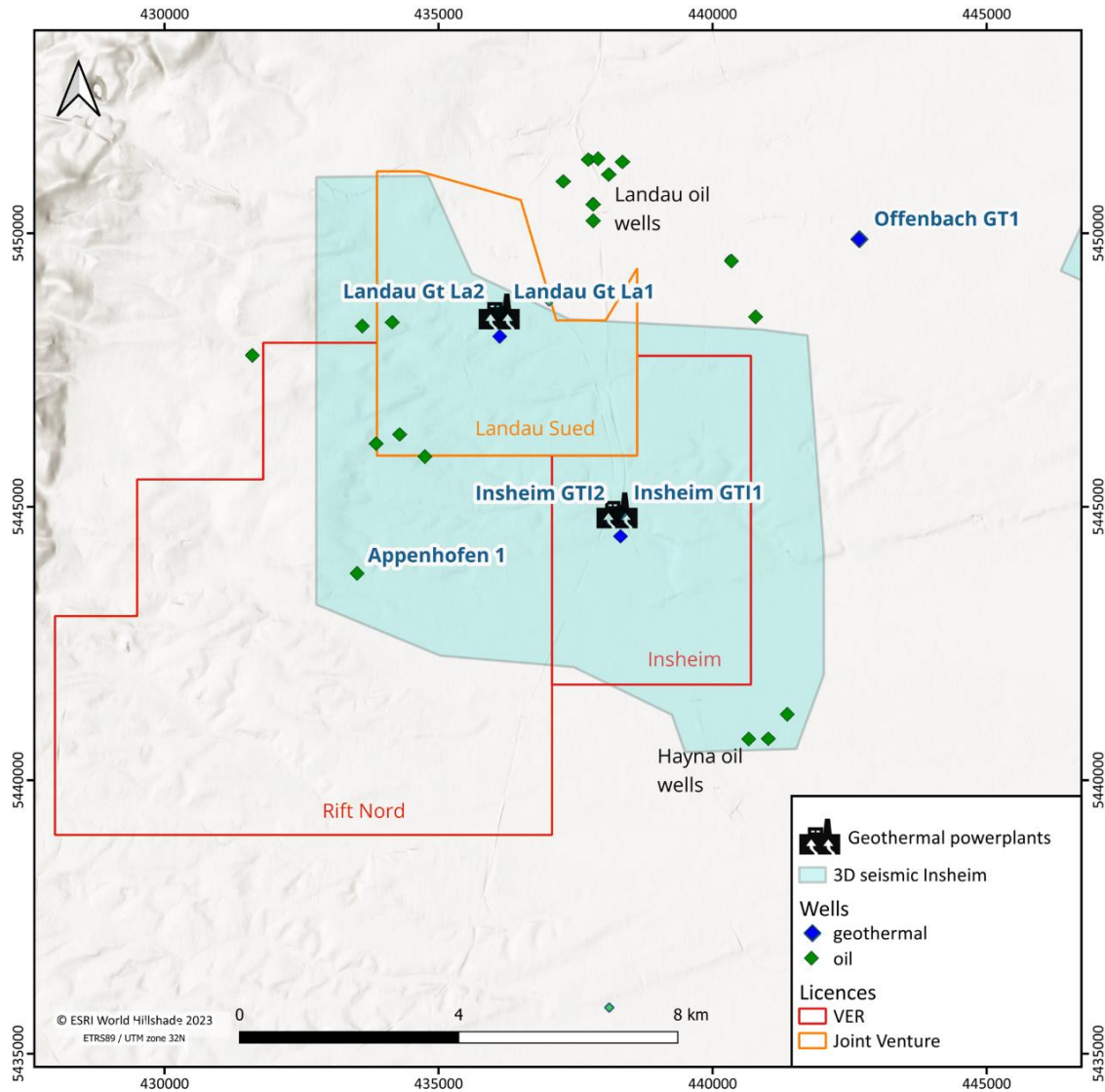


Figure 1.8: Phase One within Upper Rhine Brine Field, Showing Wells and 3D Seismic Area

Geochemical data has been consistently acquired and verified throughout the URGBF to determine the presence and concentration of lithium within the brine. Samples have been verified independently and are consistent with averages used in the resource estimates. Vulcan Group’s first comprehensive evaluation of brine chemistry was conducted in 2019 through a program that consisted of: 1) a geological compilation and subsurface review of the Permo-Triassic stratigraphy; 2) an assessment of the hydrogeological conditions underlying the Vulcan Group Property; and 3) collecting and analysing Permo-Triassic brine samples from the geothermal wells and plant operating at the Insheim resource area or property-neighbouring geothermal wells to verify the historical lithium brine geochemical results.

For the Phase One licences, the average lithium content from brine collected by Vulcan Group from six geothermal wells (including its 100%-owned Insheim geothermal plant) located throughout the URGBF and within or proximal to its licences was used as the representative grade for mineral resource estimation. This grade was 181 mg/l Lithium (n=13 total metal analyses by Inductively Coupled Plasma Optical Emission

Spectroscopy (“**ICP-OES**”). In addition, a detailed assessment of Permo-Triassic aquifer brine at the Insheim resource area production well yielded 181 mg/l Lithium (n=26 analyses). This grade was used as the regional lithium brine value for previous resource estimates and for the current update. These brine geochemical results demonstrate that the Permo-Triassic brine in the URG has a relatively homogeneous lithium chemical composition in the vicinity of the Phase One licences, both temporally and spatially.

In addition, independent brine sampling was conducted by former Project Competent Persons (CPs) in September 2019 (Insheim), March 2022 (Landau), and November 2022 (Insheim and Landau). The former CPs sent the resulting samples directly to independent, certified laboratories. In all cases, analytical results were consistent with previous results from Landau and Insheim. Further confirmation of the consistent lithium content of brine recovered at Landau and Insheim is indicated by ongoing sampling and analysis conducted by Vulcan Group to support pilot lithium extraction operations at these facilities. This has been running consistently over 3 years, with hundreds of analyses returning similar results within analytical error margin of the average estimated grade.

It is the opinion of the Competent Person that the targeted permeable zones containing high temperature brine with lithium concentrations have been sufficiently delineated for the purposes of Mineral Resource Estimation. This is based on the exploration analysis from public datasets, and proprietary data sets owned by Vulcan Group, utilising existing well data (on-property and off property) and seismic data. The recently completed seismic acquisition and processing campaign increased the confidence to extend the Mineral Resource Estimation and enabled Vulcan Group to optimise well placement for improved field development, further de-risking the Project. The static geological models are planned to be regularly updated as Vulcan Group’s development drilling and data acquisition continues across all its development areas.

1.3 MINERAL RESOURCES, FIELD DEVELOPMENT PLAN AND ORE RESERVES

1.3.1 Mineral Resources

Mineral Resources were estimated for Vulcan Group’s licences within the URGBF. Geologically, the resource area includes the fault damage zones and host rock matrix of the Permo-Triassic sediments which includes the three geological units Rotliegend, Buntsandstein, Muschelkalk groups, and 100 m thickness of the Variscan basement. The fault damage zones were modelled to uniformly include 200 m on either side of the fault. The host rock matrix makes up much of the bulk volume within the licences. Petrel, a Schlumberger geomodelling software package, was used to prepare the static model of the reservoir. This modelling approach is based on a comprehensive data set that includes 3D seismic, 2D seismic, geological well data (including core samples, outcrop data, depositional environment interpretations), and production data from currently producing wells at the Insheim and Landau licences within the core of the Phase One area.

The workflow implemented for the calculation of the lithium brine mineral resource estimates for each licence is as follows:

- Definition of the geology, geometry and volume of the Permo-Triassic strata within the fault damage zones and host rock matrix using all the available subsurface and surface data

- Hydrogeological characterisation and an historical compilation and assessment of effective porosity (Figure 1.9) within the URGBF to estimate an average value for each geological unit
- Determination of a representative lithium-in-brine concentration for each licence, based on Vulcan Group's brine sampling programs across the URGBF as well as independent testing of samples at Insheim and Landau
- Numerical calculation (estimation) of the *Lithium-Initially-In-Place (LIIP)* using the relation:

$$LIIP = \text{Gross Rock Volume (GRV)} \times \text{Average Net-to-Gross Ratio (Avg NTG)} \times \text{Average Effective Porosity (Avg Phie)} \times \text{Average Concentration of Lithium in the Brine (Avg LC)}$$

Where;

- *GRV (km³): gross rock volume - extracted from the geomodels after the verification and validation of the continuity of the stratigraphic horizons and fault interpretations.*
- *Avg NTG (decimal): net to gross thickness ratio - gross thickness is determined from average thicknesses of the zones of interest identified in well log data and seismic data. The average net thickness is determined using an effective porosity cut-off of 5 % within the gross interval. This is based on producing and previously producing geothermal and oil and gas wells within the URGBF (Appenhofen 1, Landau 207 and 211, Römerberg oil wells A-E), within and proximal to Vulcan Group's Phase One area, that showed significant fluid flow from the target reservoirs. On the porosity versus permeability cross plot of all the available core and sidewall core plug data in the URG for the Buntsandstein (Figure 1.9), 5 % effective porosity is equivalent to 0.02 mD permeability. Because permeability cannot be measured directly using wireline logs, this correlation of porosity with permeability helps to establish the effective flow of fluids within a reservoir where core data are not available. This is based on The Canadian Oil and Gas Evaluation Handbook published by Society of Petroleum Evaluation Engineers (2005) for the evaluation of subsurface reservoirs (also see Nelson (1994) for theoretical explanation). Studies defining the porosity and permeability relationships using core plug measurements of producing geothermal and oil and gas wells (Figure 1.9): GeORG (2013) – Upper Rhine Graben regional study, Bossennec (2019) – Römerberg oil field, Busch et al. (2021a, b) – Landau geothermal, Heap et al. (2019) also provides core plug measurements of the Buntsandstein Group in the Soultz ESP-1 well in the URG in France.*

Avg Phie (decimal): effective porosity - that portion of total void space of a porous material that can transmit fluid. Determined from the petrophysical evaluation of density, neutron, and/or sonic well logs covering the zones of interest, supplemented with core and plug data where available.

Avg LC (mg/l): average lithium concentration determined from sampled wells in the URG.

- Assessment and confirmation of “reasonable prospects for eventual economic extraction” for the estimated Mineral Resources on each licence, as per the JORC (2012) definition of Resources.

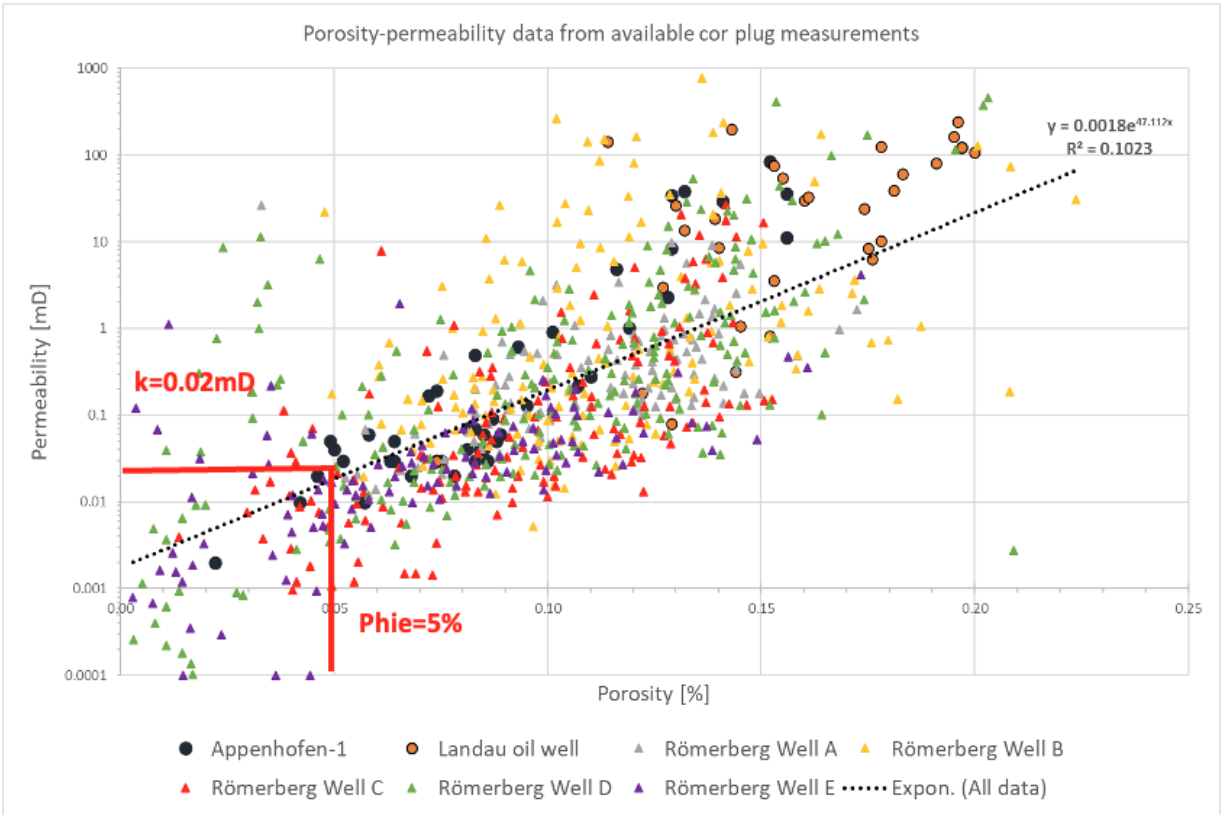


Figure 1.9: Porosity versus Permeability Cross Plot of Buntsandstein Core Data for Seven Wells in the URGBF

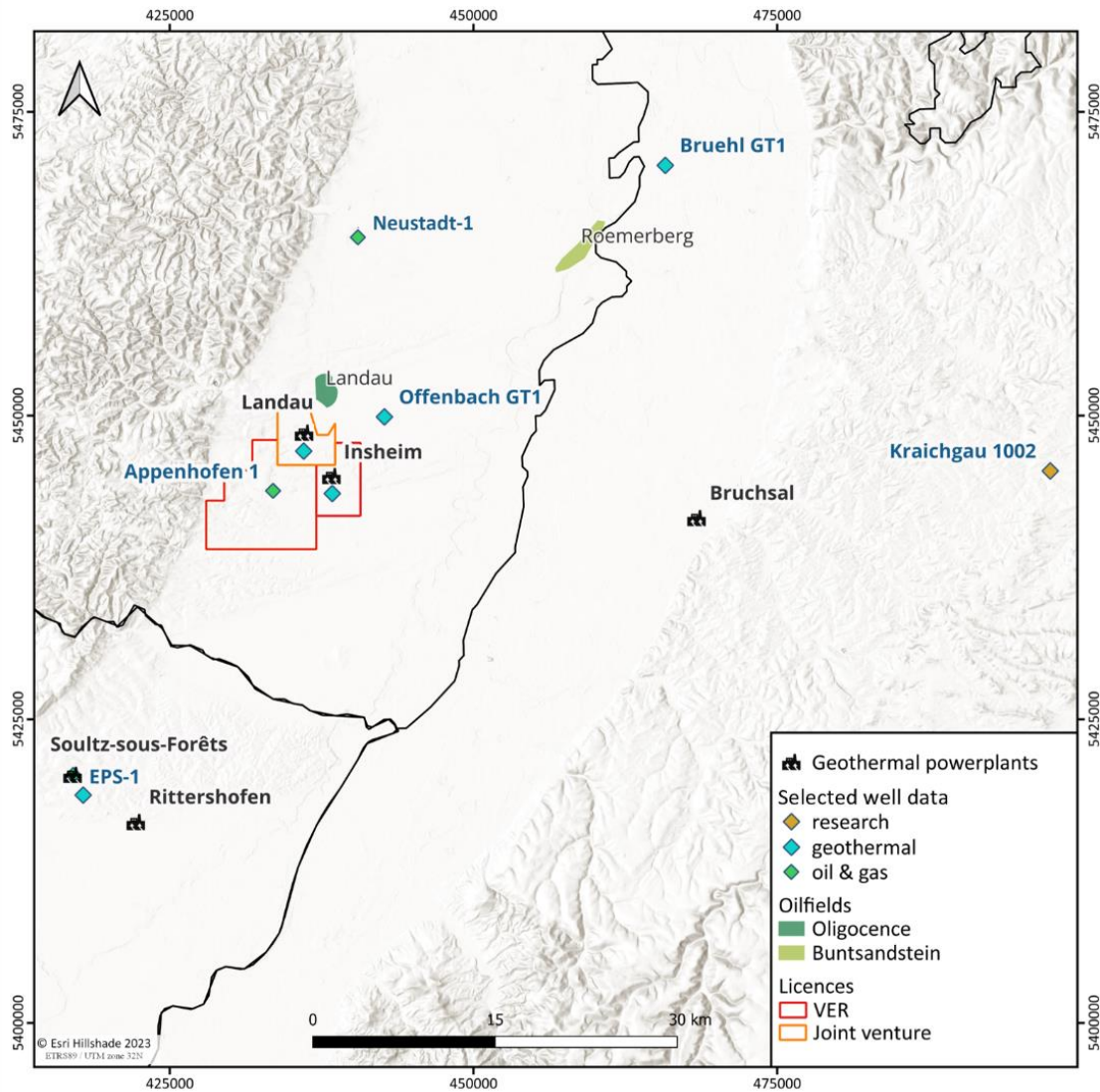


Figure 1.10: Map showing locations of wells with data incorporated into the Phase One study area including on-property wells at Insheim-Landau geothermal plants, Appenhofen-1, wells within Landau and Römerberg oil fields near to Taro. Green shows larger oil fields containing multiple wells.

Derivation of NTG and Phie inputs to the Mineral Resource calculations was supported by a compilation of publicly available porosity and permeability data for the Rotliegend, Buntsandstein, and Muschelkalk units (fault damage zones and host rock matrix) including:

- Over 300 effective porosity measurements from Buntsandstein core and outcrop analysis and total porosity from wireline well log data, located throughout the URG (GeORG 2013; Soyk 2015; Egert et al. 2018)
- Over 250 Buntsandstein Group permeability measurements and/or interpretations (GeORG 2013; Stober & Bucher, 2014), including inferences on fracture permeability (Vidal et al., 2015; Baujard et al., 2017)
- Over 1,500 Rotliegend outcrop and 62 Rotliegend core plug porosity measurements (Bär, 2012; Aretz et al. 2016)

- Over 550 Rotliegend Group permeability measurements from well core plugs (Bär, 2012; Aretz et al. 2016)

Lithium-brine analytical data used in the resource estimates were discussed in the previous Section 1.3. As noted, an average grade of 181 mg/L lithium was used for the Phase One licences.

To validate the continuity of the stratigraphic horizons of interest and to validate the fault interpretations, an independent audit by the Competent Person was conducted of the modelled surfaces and faults based on; 1) raw seismic profiles, 2) downhole drill logs and e-logs associated with geothermal, and oil and gas wells drilled within the URG, 3) the regional 2D geological model cross-sections, and 4) the 3D geomodel. A cut-off grade / resource quantity analysis was not strictly applicable to resource, due to the use of average grade in the static resource estimate.

The resource classification criteria used for the URGBF are based on the quality of the data available and the CP confidence level in the integration of all the data by Vulcan Group's multi-disciplinary team. This team includes geophysicists, geologists, reservoir engineers with experience from the oil and gas industry, hydrogeologists, geothermal specialists, and chemical engineers with relevant experience in the Permo-Triassic brine geology, hydrogeology, and lithium brine processing. The Mineral Resource classifications are shown on (Table 1.1) for Vulcan Group's licences in the URGBF that were part of the Resource Estimate. Some important points to support the assigned Mineral Resource classifications include: 1) a greater level of confidence in the subsurface geological modelling because of Vulcan Group's acquisition of 2D and 3D seismic data, as well as static and dynamic modelling of the Permo-Triassic strata calibrated to available well data, 2) ongoing production data from two producing geothermal wells at Insheim (in production since 2012) and Landau (in production since 2007), and the acquisition of new well test data during a recent production well workover, and 3) knowledge of Vulcan Group's commissioned Adsorption-type Direct Lithium Extraction ("**A-DLE**") mineral processing test work and results from its pilot plants at the operating wells.

Vulcan Group has completed multiple phases of test work, sampling and interpretation that are adequate to support the disclosure of Mineral Resource Estimates. In the opinion of the CPs, the URGBF licences for lithium and renewable energy projects have reasonable prospects for future economic extraction based on aquifer geometry, delineation of fault zones using new 3D seismic data, brine volume, brine composition, hydrogeological characterisation, porosity, fluid flow, optimisation of field development plan, and advancement of the Company's A-DLE technology. The CPs, Gabriella Carrelli, M.Sc., P. Geol. and Kim Mohler, P.Eng. take responsibility for this statement. Per JORC, Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. Inferred Mineral Resources have a lower level of confidence associated with their estimation than Indicated Mineral Resources, but it is reasonably expected that with further exploration the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources. Indicated Mineral Resources are sufficiently well defined to allow application of Modifying Factors to support well planning and economic evaluations of the deposit. Measured Mineral Resources are sufficiently well defined to allow application of Modifying Factors to support detailed well planning and final evaluation of the economic evaluations of the deposit.

Table 1.1: Vulcan Group's combined Project lithium (Li) brine Measured, Indicated and Inferred Mineral Resource Estimates. Phase One licences indicated in orange. See Competent Person Statement at the end of this document. *Note 1: Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. Note 2: The weights are reported in metric tonnes (1,000 kg or 2,204.6 lbs). Numbers may not add up due to rounding of the resource value percentages. Note 3: Reservoir abbreviations: MUS – Muschelkalk Formation, BST – Buntsandstein Group; ROT Rotliegend Group; BM - Variscan Basement. Note 4: To describe the resource in terms of industry standard, a conversion factor of 5.323 is used to convert elemental Li to Li₂CO₃, on LCE. Note 5: NTG and Phie averages have been weighted to the thickness of the reservoir. Note 6: GRV refers to gross rock volume, also known as the aquifer volume. Note 7: Mineral Resources are considered to have reasonable prospects for eventual economic extraction under current and forecast lithium market pricing with application of Vulcan Group's A-DLE processing.*

Licence/ Area	Reservoir	Classification	GRV km ³	Avg. NTG %	Avg. Phie %	Avg. Li mg/L	Elemental Lithium	LCE kt
Insheim	*MUS, BST, ROT, BM	Measured	13	69	9	181	151,823	808
Rift-North	*MUS, BST, ROT, BM	Measured	9.5	70	9	181	110,181	586
	*MUS, BST, ROT, BM	Indicated	29	71	9	181	355,443	1892
Landau Sued	*MUS, BST, ROT; BM	Measured	12	68	9	181	134,677	717
	*MUS, BST, ROT; BM	Indicated	2.7	69	9	181	29,620	158
Flaggenturm	BST	Indicated	7	90	10	181	115,215	613
	BST	Inferred	37	65	9	181	391,201	2,082
Kerner	BST	Indicated	5	90	10	181	76,242	406
	BST	Inferred	13	65	9	181	132,558	705
Kerner Ost	*MUS, BST, ROT	Indicated	4.3	73	8	181	66,708	355
Taro	*MUS, BST, ROT	Indicated	14.5	73	8	181	237,362	1,263
Ortenau	*MUS, BST, ROT	Indicated	57	73	8	181	659,013	3,507
	BST	Inferred	105	73	8	181	1,883,212	10,024
Mannheim	BST	Indicated	4	90	10	153	54,111	288
	BST	Inferred	32	65	9	153	290,312	1,545
Ludwig	BST	Indicated	7	90	10	153	93,220	496

Licence/ Area	Reservoir	Classification	GRV km ³	Avg. NTG %	Avg. Phie %	Avg. Li mg/L	Elemental Lithium	LCE kt
	BST	Inferred	22	65	9	153	199,226	1,060
Therese	BST	Indicated	2	90	10	153	29,907	159
	BST	Inferred	22	65	9	153	200,708	1,068
						mg/L	kt	
Total LCE		Measured				181	2,112	
		Indicated				178	9,137	
		Inferred				172	16,484	

1.3.2 Field Development Plan

The FDP is the overall well plan which defines the brine production and injection forecast for the Phase One of the project area at Lionheart. The development plan for Lionheart (Figure 1.11) has been optimised since the DFS and includes the addition of new wells, plus the continued operation of existing wells at Insheim and Landau. The placement of the new wells has been optimised using the newly acquired 3D seismic and improved static and dynamic models. The FDP takes into consideration the drilling plan for the wells and the timeline for construction of surface facilities and infrastructure for the Project. All activities associated with the FDP and overall project execution take into consideration safety and environmental protection and plan to follow all regulatory requirements.

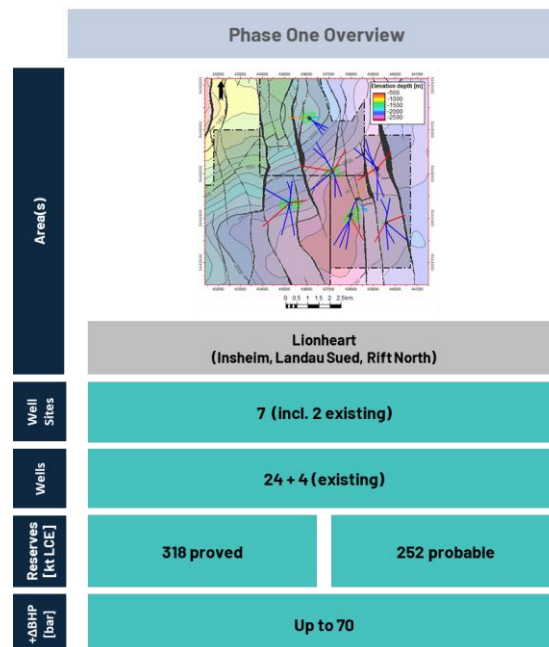


Figure 1.11: Bridging Study Field Development Plan

Field development plan

The FDP provides flexibility to cater for different risks and opportunities as they become apparent as part of the drilling campaign which could see improved CAPEX, lithium recovery and injectivity management. The revised plan is focused on Lionheart and provides a higher level of certainty which resulted in increased Proved Ore Reserves since the DFS.

The FDP targets to produce at initial brine production rate of 950 l/s of geothermal-lithium brine from the upstream Lionheart area of Phase One, from multiple new and existing well sites. A phased ramp up of brine flow across the geothermal plant, LEP and CLP (see Table 1.2) allows for incorporating early operational experiences along with the continuous drilling and completion of well-sites into facility operations.

Peak LHM production of 24kt/yr is to be achieved by 2030 with only 90% of the brine production design capacity, whilst spare capacity is used to manage dilution of the lithium concentration in the production stream during plateau production. Balancing out dilution effects by increasing brine production rates results in a stable 24kt LHM plateau. From 2036, brine flow rate facility limits are reached, dilution cannot be further mitigated, and LHM production starts to drop below 24kt/yr. It is likely that further production wells will be added in the Phase One resource area beyond this point, to keep production levels stable, but this has not been factored into the models or economics yet.

The producer wells are planned to be connected to open faults which are within a high conductivity area, in order to minimise the drawdown. The injector wells are planned for drilling mostly away from the faults to optimise the sweep of lithium-rich brine toward the faults and the producers, while some injectors are planned to be drilled to the fault zones to increase the water injection capacity if deemed optimal. The injectors drilled in matrix permeability dominated areas are mostly multilateral so that the connection to the reservoir is maximised. This hybrid development concept of reinjecting brine where geology is most favourable, allows for maximised recovery which serves to manage subsurface uncertainties and reduces risk.

Table 1.2: Brine flow production ramp-up (%), to maintain stable LHM production plateau

Q4 Yr 1	Q1 Yr 2	Q2 Yr 2	Q3 Yr 2	Q4 Yr 2	Q1 Yr 3	Q2 Yr 3	Q3 Yr 3	Yr 9
25%	44%	57%	70%	78%	85%	86%	88%	100%

The typical well trajectory will start from vertical, at surface down to a depth of 1,000 m, and will then deviate to reach the bottomhole target location in the Buntsandstein at depths of up to 4000 m. Vulcan Group plans out each well individually but uses a generic model as a base case. The wells are planned to be drilled with water-based mud systems and include extensive formation evaluation methods such as mud logging, wireline logging, coring and geochemical analysis of cuttings and downhole fluid samples. The wells are planned to be large sized boreholes to accommodate the large fluid rates expected, with 20" surface casing down to 7" liner across the production or injection intervals.

The dynamic reservoir modelling (Figure 1.12) assumes dilution of lithium concentration over time at the reservoir level near the producer wells due to sweep effects of the lithium diluted brine reinjection. The cut-off assumed for economic production is 100 mg/L lithium, where the starting concentration is 181 mg/L

lithium. This assumption of dilution and economic cutoff grade is considered reasonable for this level of assessment.

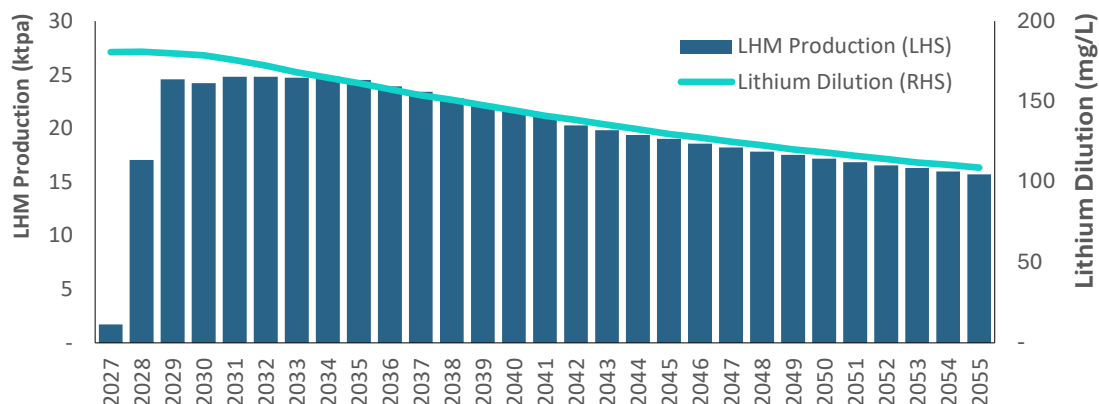


Figure 1.12: Base Case forecast lithium production and dilution

Revised FDP Summary

- 950 l/s brine rate production target
- 24 new wells, 4 existing wells
- 11 producers (86 l/s brine rate per producer)
- Hybrid re-injection well network
- Up to 70 bar pressure
- 595kt (CLP-outlet as reference point) LHM production over Project life

The expected flow rate from each well is determined by geological characterisation and the dynamic flow modelling (Figure 1.13), with maximum drawdown for producers and maximum injection pressures taken into consideration and then optimised for lithium sweep. A 1:1 ratio of produced to injected fluid is assumed, as there is no water storage planned for the sites. This replacement of lithium depleted brine back to the reservoir allows for pressure maintenance and manages sweep effects.

There are a total of 11 production wells planned for Lionheart, which include two existing operational production wells. A total of 17 injectors are planned, including the 2 existing operational wells, and an addition of 12 side-tracks. The location and number of wells may vary as this plan is subject to change as the drilling progresses and more reservoir and fluid information becomes available.

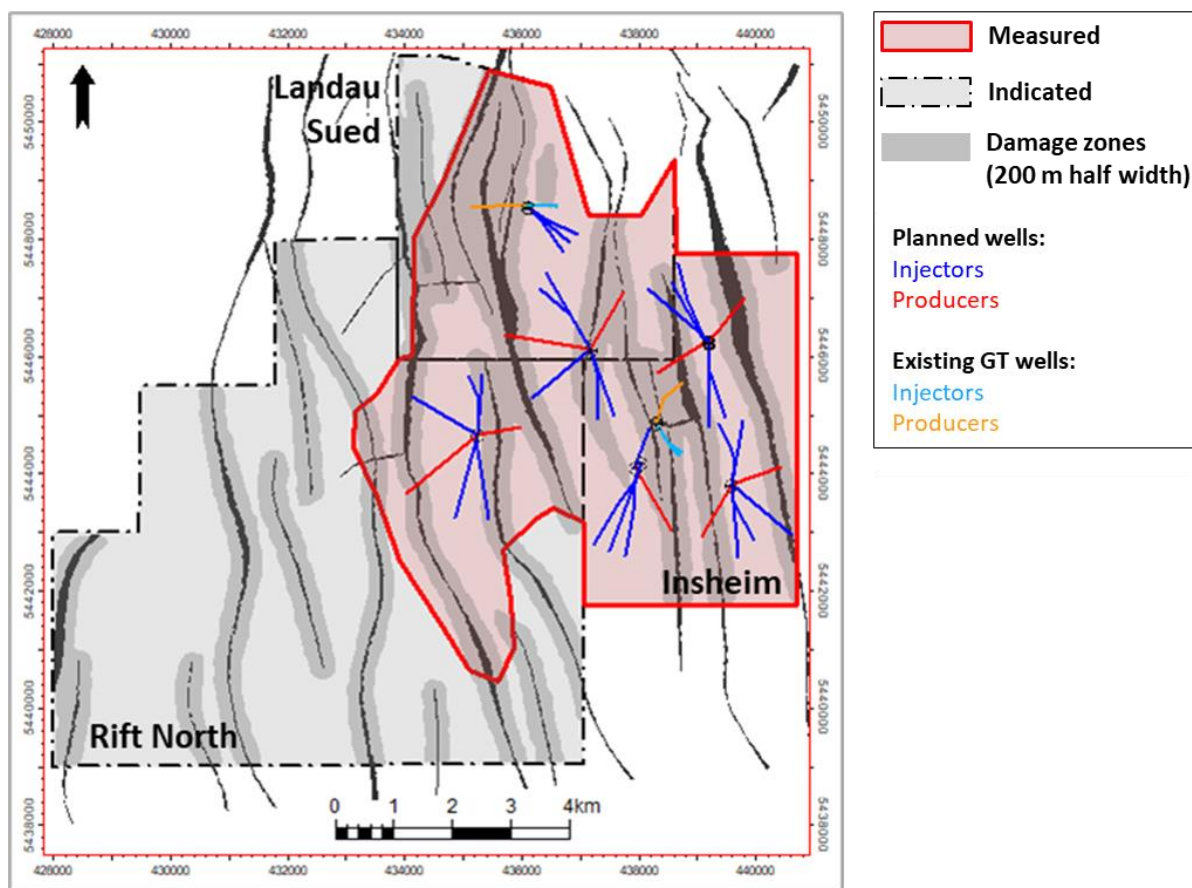


Figure 1.13: Lionheart Reservoir Framework and Planned Well Placement. Vulcan Group plans to use existing production wells and add new wells with the aim to achieve production/re-injection capacity of 950 l/s which is equivalent to ~24,000 tpa LHM at start of full production

1.3.3 Ore Reserves

The Ore Reserves are reported on an area basis and comprise such quantities that are accountable to the Phase One Lionheart licences. Table 1.3 summarizes the Ore Reserves from these licences at Insheim, Landau-South, and Rift-North. The reference point for the Ore Reserve estimation is the wellhead or production manifold. As such it does not include the extraction recovery factor of the LEP which is 94 % for a concentration of 181 mg/L production fluid and declines to 90 % when reaching a concentration of 100 mg/L production fluid. A weighted average yield is 93 % for the 15-30 years production. As such, the CLP outlet lithium mass flow is about 93 % of the lithium inflow into the LEP inlet.

The reference point is chosen to enable stakeholders to compare Ore Reserves with the respective Mineral Resources and to calculate the subsurface recovery factor and meets the requirements of the reference point definition of Ore Reserves in accordance with the JORC 2012 Code.

For Lionheart, the production forecast peaks at 24 kt/year LHM in Yr 2 and reaches a cumulative production of 318 kt LCE after 15 years and of 570 kt LCE after 30 years referenced to the well-head. The technical lithium recovery factor after 15 years of production is 17 % and 30 % after 30 years, which is estimated from

the Measured Mineral Resource quantity of 2,112 kt LCE. For the estimation of Ore Reserves at Lionheart where there are existing production wells, the cumulative production after 15 years of production is used to represent Proved Ore Reserves. For the estimation of Probable Ore Reserves, the cumulative production from Year 16 to Year 30 is used.

The confidence in the Phase One Ore Reserve estimate has increased as compared to that reported for the DFS. The basis for the revision is due to multiple factors. The Phase One FDP has been optimised to one central location at Lionheart and now excludes Taro, which is planned for development in a future Phase. The development at Lionheart has more wells with optimised placement, as de-risked by the 3D seismic and dynamic modelling, mentioned in previous sections of this report. Additionally, contribution from the Upper Buntsandstein and Basement have been considered, which were not included in the DFS Ore Reserves estimate.

Table 1.3: Bridging Study Phase One Ore Reserves

INSHEIM, LANDAU SUED, AND RIFT NORD		
Reserves Classification	Lithium grade (mg/l)	Economic Reserves Quantity at Wellhead Reference Point (kt LCE)
Proved	181	318
Probable	181	252

It is the opinion of the CP that the methods utilised to estimate the Ore Reserves followed accepted industry practices and utilised a thorough approach. The geologic modelling that established the basis for the dynamic flow modelling was of high quality and utilised data from existing wells and 3D seismic data. The integration of the production behaviour from the existing geothermal wells helped to confirm the model assumptions. Additionally, Vulcan Group deployed a fully probabilistic approach to the dynamic flow simulation and production forecasting. This iterative approach included testing of various reservoir geometries, well placements, dilution uncertainties and flow rates, and established a range of possible outcomes with the base case representing a reasonable expectation for lithium production for the Phase One of the Project. The mining method utilised is widely accepted and proven for geothermal and hydrocarbon production with the utilisation of deep wells for lithium brine production to surface. The drill spacing is defined by the dynamic flow models and has been optimised for efficient brine recovery.

The Ore Reserve Estimation method established and used for the Project took into consideration the nature of this type of lithium brine recovery from geothermal wells. Consideration was given to reserve estimation methods used for the oil and gas industry from similar reservoirs. Due to the reservoir being an open and active recharging system, there are differences that were accounted for in the decision to define the Ore Reserves based on the number of years of cumulative lithium production. This represents a probabilistic approach where a high level of certainty is associated with the likelihood of producing the Proved Ore Reserves quantity economically near existing production wells, per JORC requirements. The estimation of Probable Ore Reserves followed a similar test of uncertainty, and the cumulative lithium production after 30 years is believed to be a reasonable representation of what is economically recoverable with applied

modifying factors. The modifying factors include the well network design, pilot testing of metallurgical processes, surface facility and infrastructure design, marketing contracts and pricing study, regulatory permitting process, and economic analysis that shows the Project is viable.

It is recommended by the CP that further optimisation work be conducted to improve the ramp-up period, which may include dynamic reservoir modelling sensitivities. It could be possible to reach peak production rates earlier which may result in an improved Ore Reserves estimate in the next stage of the Project.

1.4 WELL SITES AND INTERCONNECTING PIPELINE & POWER

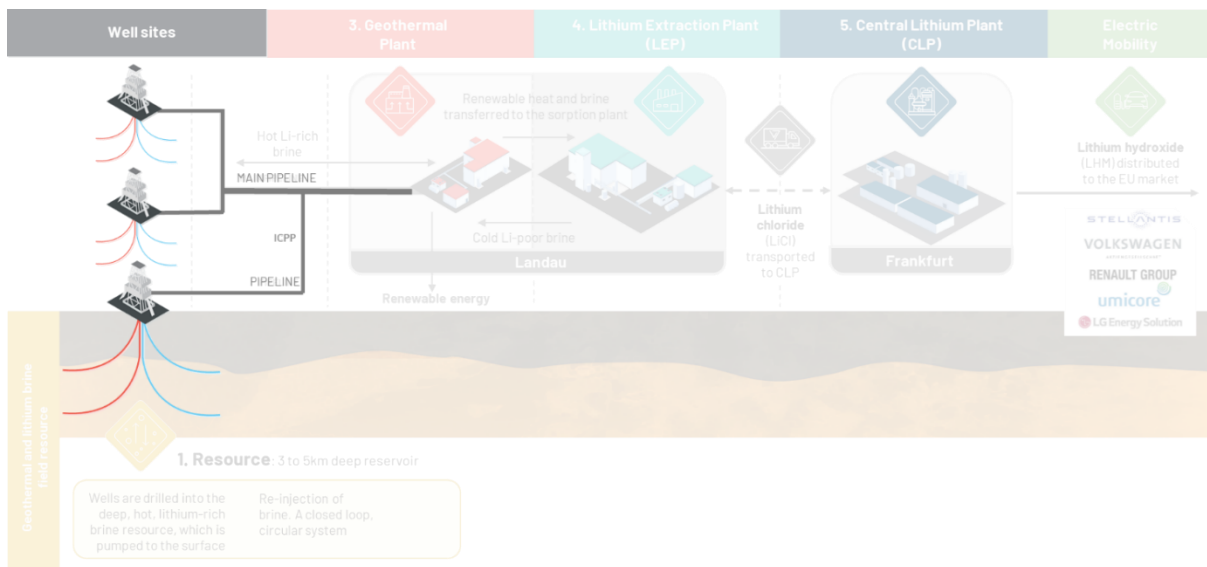


Figure 1.14: Well Site and Piping System to Geothermal Infrastructure

1.4.1 Well Sites

1.4.1.1 Scope

The well sites (Figure 1.14) are managed internally according to a self-delivery model. More specifically, the Vulcan Group entity remains responsible for the delivery of the wellsites scope, utilising a series of subcontracts which are directly managed by the project team. The scope of work for the well sites includes the surface facilities and drilling execution for all five sites to be newly developed as well as the existing well sites in Insheim and Landau. The well sites to be newly developed are standardised in terms of process technology. They only differ in the number of production and injection wells and in terms of small location specific conditions, such as logistical considerations and site-specific conditions.

1.4.1.2 Process

The brine is extracted with one Line Shaft Pump (“LSP”) per production well. The pump drive and all electrical components are located at the surface. Compared to Electrical Submersible Pumps (“ESP”), where the motor is located in the well, LSPs are a more cost-effective variant with significant maintenance advantages. The brine is pumped upwards by the centrifugal forces developed through rotating impellers

connected in series, which are driven by the motor above the borehole. The multi-stage design of the impellers provides the necessary pressure to overcome the flow resistances and the geostatic head. The pipeline pump station increases the pressure to the extent necessary to transport the brine to the lithium extraction plant. The individual well sites differ primarily in terms of the mass flows produced and the temperature of the brine.

Chemical inhibitors are added to the brine before the brine stream enters the interconnecting pipelines system. Corrosion and scaling inhibitors are used to inhibit corrosion and to minimise mineral deposits. Scaling describes the binding of mineral deposits in pipelines or on other components of a geothermal system. The deposits are primarily dependent on the chemical composition of the brine, whereby these properties are very Project-specific and can vary from site to site. Scaling affects almost all geothermal projects, but to varying degrees and at different points within the system.

At a constant temperature, the brine is fed as a common mass flow through the thermally insulated above-ground piping system to the prefilter station. There, particles are filtered out of the brine that could hinder the process and damage the components. During the first hours of operation, an increased load of particles to be filtered is expected, this decreases during operation. The filter station has a 100% redundant implementation allowing for offline maintenance, increasing system availability.

After filtration, the brine is routed to the industrial water cycle heat exchanger. There are shell and tube heat exchangers installed at each well site which are responsible for the heat transfer between brine and industrial water. Due to their design, shell and tube heat exchangers require less maintenance than plate heat exchangers and are particularly suitable for large mass flows with acceptable pressure loss. The disadvantage is a somewhat more inefficient heat transfer. In the industrial water cycle heat exchanger, the energy transfer between the brine (primary circuit) and the industrial water (secondary circuit) takes place via the shell and tube heat exchanger. After the heat transfer, the brine, which is significantly cooled at that point, is sent to the pump station. A centrifugal pump ensures the necessary pressure in the pumping station so that the brine can cover the distance to the LEP at the desired pressure. From the geothermal lithium extraction plant (“GLEP”), the cooled industrial water arrives at the heat exchanger. After energy transfer, the reheated industrial water is routed via a pipeline pump station and its centrifugal pump to the steam generation plant at LEP. A bypass is installed around the industrial water cycle heat exchanger, for maintenance purposes.

A central bypass is located on the brine pipe, between the heat exchanger and the brine pump station. This bypass leads via a separator into a brine pond used during start-up of the plant. The bypass can also be used to avoid a shutdown of the LSPs in case of a (partial) system failure in other parts of the system (e.g., brine pipeline). In this case, the brine is routed past the heat exchanger via the separator and into the brine basin, as in the case of plant start-up. Alternatively, the brine can also be routed through the heat exchanger. Due to the resulting cooling, routing via the pond is not necessary, routing directly to the re-injection system.

Both during regular operation and during diversion via the bypass, the brine is routed through an injection filter station (redundantly designed), designed for finer particulate removal when compared to the production filter stations. This filter system is intended to prevent particle deposits to avoid pressure losses and to protect the injection wells from clogging on the other.

After filtration, the redundant injection pumps increase the pressure as needed to return the brine to the reservoir. The power consumption of the injection pump depends primarily on the performance of the injection well and can vary for each well site.

1.4.1.3 Layout & Civil

The wellsites to be newly developed are identically structured. There are only minor deviations between them due to access and exit differences that are adapted to local conditions. The only significant difference is the number of production and injection wells. A standardised well site layout (Figure 1.15) is presented and explained.

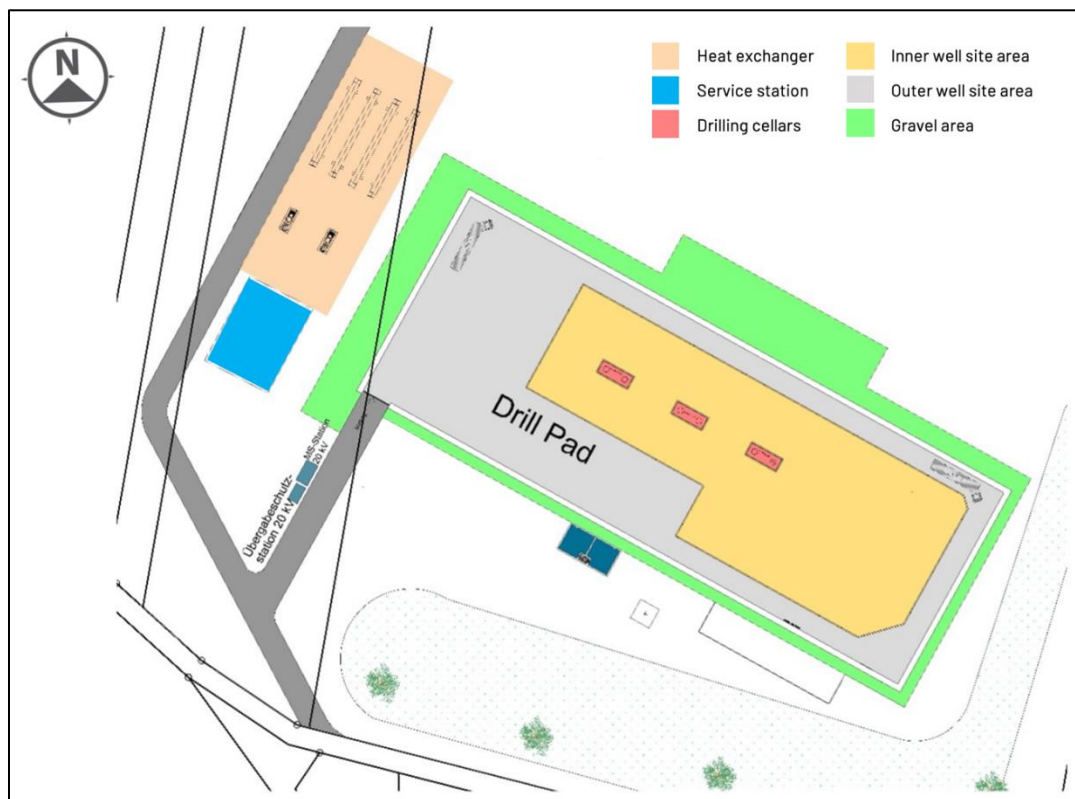


Figure 1.15: Standardised North Aligned Layout Overview of a Well Site

The well sites will be developed according to the stability of the subsoil and in accordance with the guideline "Design of the well site 08/06" of the German Federal Association for Natural Gas, Petroleum and Geoenergy (*Bundesverband Erdgas, Erdöl und Geoenergie: BVEG*). Each well site is divided into an inner and an outer well site area and surrounded by gravel. In addition to the access/exit, there are additional escape and rescue routes.

The inner well site area during drilling operations contains the drilling rig, the tank farm, and the blending plant as well as all units belonging to the solids control and drilling mud system (mud tanks, centrifuges, desanders, desilters, etc.). This area also contains the mud pumps, blow out prevention system, emergency generators and fuel, a storage areas and silos materials, lubricants and cement in order to ensure spill containment, Environmental protection and water pollution control, will require this area to be constructed to prevent liquids hazardous to water from penetrating the ground, both from a retention perspective, by

utilising gravity fall to towards the inner area and surfaced with a liquid-proof asphalt. The inner area also has a separate drainage system. All rainwater is drained off via street inlets and collected in a retention /buffer tank.

During drilling operations, the outer well site area contains the test water tanks, retention basin for the drainage of the inner area, containers for the service companies as well as workshop, storage, magazine, and office containers, as well as the sanitary, changing and tool pusher containers. Water-polluting substances are not stored in the outer area.

The drilling cellars will be constructed in waterproof concrete. Here, the respective sites differ regarding the planned number of wells. With the construction of the well site, the standpipes will be set to a depth of approx. 60 m, dependent on the geological conditions and cemented to the surface. Sufficient lighting of the well site will be provided for night operations. At the top of the mast, the drilling rig will be equipped with an air traffic control light. Every site will also house a technical building as well as a transformer station.

After the drilling operations are complete the surface facilities will be installed to support the process as described in section 1.4.1.2, linking the wells to the ICPP industrial water, brine, power and control loops.

1.4.1.4 Electrical

The high voltage power received from the grid is transformed to lower voltage levels using transformers. There is a site wide distribution, switching and circuit breaker system to safely manage the operation.

In Insheim and Landau, a medium-voltage line leads to the geothermal plant site. Since the plant is already in operation, the power supply is only required for brine transportation, through additional transformers, switchgear and circuit breakers.

1.4.2 Interconnecting Pipeline & Power

1.4.2.1 Process

The Lionheart Project development produces brine at geologically optimised drilling and extraction sites with a centralised lithium extraction process in one plant. This distributed transportation, supply and control design, requires an integrated power and pipeline system (ICPP) to deliver brine, industrial water, power and control from the LEP to the various wellsites.

The pipeline corridor will also be used to establish a power and data distribution network. Within the pipeline corridor itself will be run a 20 kV and data network from the centralised LEP plant to the individual wellsites.

1.4.2.2 Brine Transportation

A pipeline system to transport the lithium-rich brine from the wellsites to the central LEP and to transport it back to the well sites for re-injection of the lithium-poor brine. The lithium brine extraction and transportation process is described elsewhere in this document.

1.4.2.3 Industrial Water Cycle

The transfer of the geothermal heat energy at the well sites from the brine to an industrial water circuit is used to minimise the risks relating to transporting hot brine. Part of the thermal energy is transferred from

brine to the industrial water circuit at the well sites using heat exchangers. The warm industrial water is then transported and used for steam, heat, and electrical power generation. The resulting cooled IW is returned to the well sites in a second return pipeline in a closed cycle.

The transport of geothermal energy requires that the planned industrial water pipeline is filled with water of sufficient quality. Well(s) for fresh groundwater are to be installed on the site of the GLEP for initial filling and supply of make-up water into the closed loop IW cycle. Industrial water; used to supply the centralised plants with heat energy; is water that has been desalinated and degassed to minimise corrosion issues with the related pipelines, using both mobile units and the installed water treatment facilities at the GLEP.

1.4.2.4 Pipeline Route

The Lionheart ICPP system consists of 7 pipeline construction segments and the main hub back at the combined LEP & ORC, known as the GLEP site.

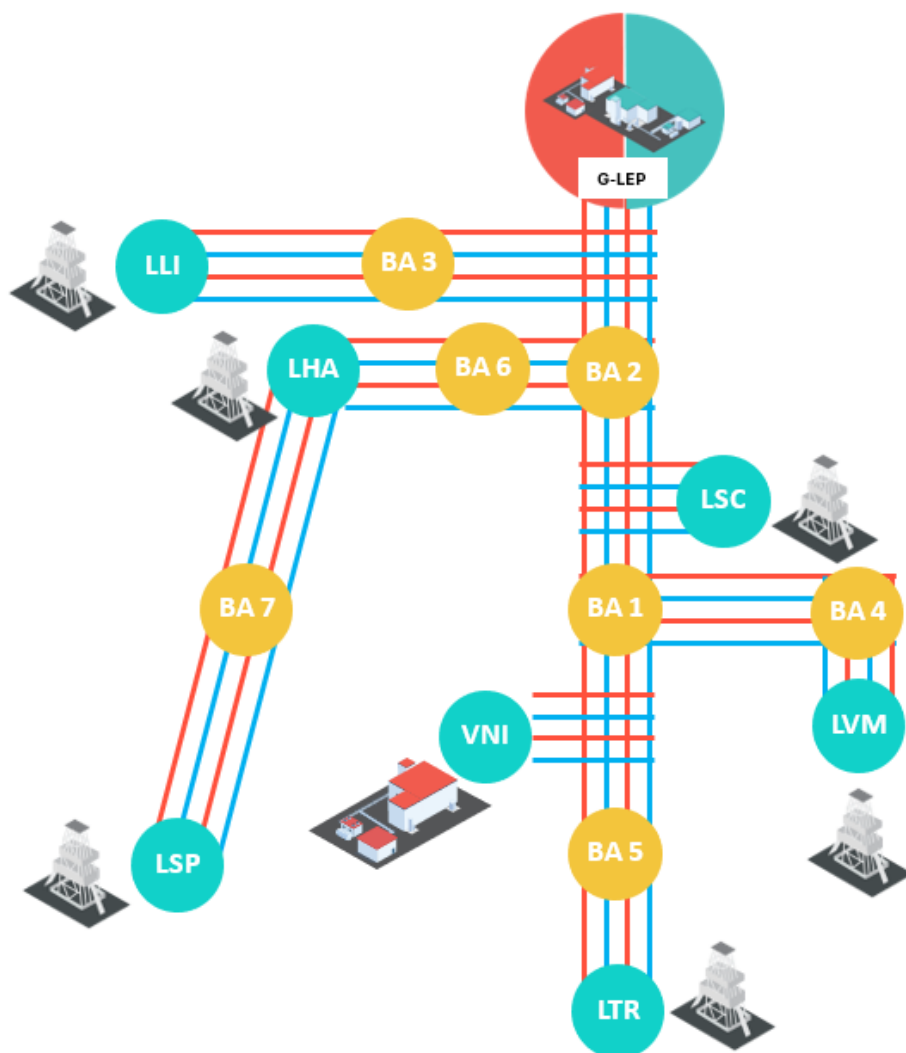


Figure 1.16: ICPP Routing Schematic

The entire pipeline system and its diameters of the industrial heating and the brine pipeline are optimised into two sizes to reduce complexity and simplify the Project execution and operation of the pipelines, including pigging.

1.4.2.5 Technical Description

The design and material selection of the pipelines is such that meets all pipeline regulatory standards, besides the pipelines themselves the main elements are engineered and installed to control the flow of brine and industrial water circuit and to efficiently operate and maintain the systems.

Each pipeline segment has valving arrangement dependent on the pigging and maintenance requirements. This requires access structures and shafts to be installed, and used functionally for ventilation, draining, control and cleaning, as well as adaptation to changes in direction, cross-section, gradient, by allowing installation and access to control systems, valving and actuators. Other typical structural elements are used for crossings, structural support and foundations. Where possible the prefabricated elements are used

Each Segment is equipped with a wired leakage monitoring system, integrated in its downstream connection point. A fibre optic cable network connects all segment controls with the main control room in the GLEP operating building, where they are centrally controlled and monitored.

1.5 LITHIUM EXTRACTION

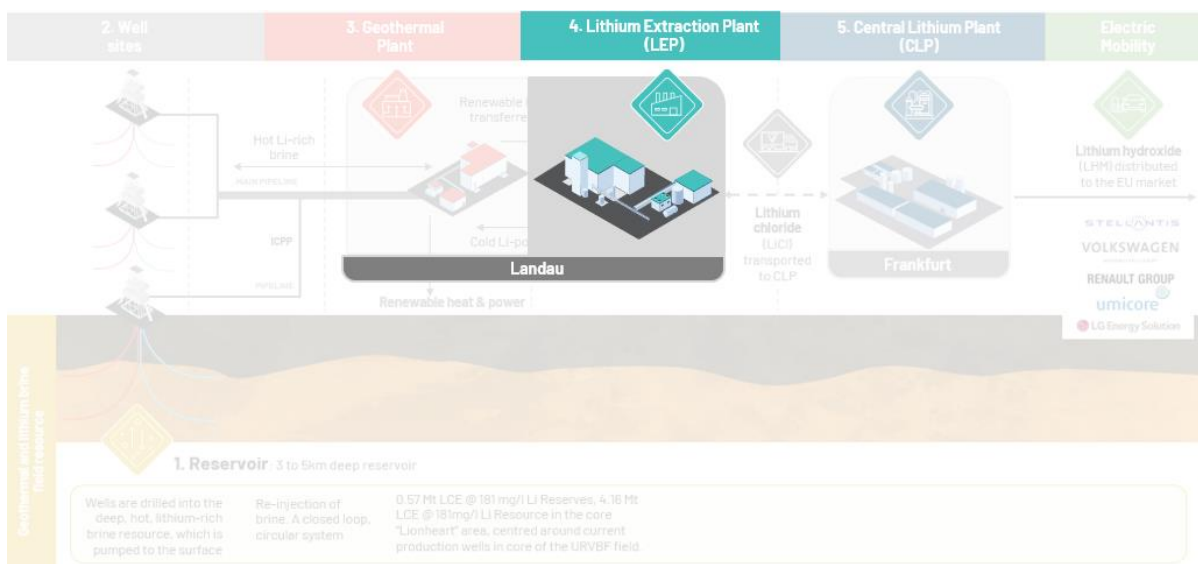


Figure 1.17: Phase One Lithium Extraction Plant

Vulcan Group is building a LEP (Figure 1.17) for Phase One, with capacity for production of 24,000 tpa LHM-equivalent of lithium chloride concentrate. This LEP will be located on the same site as the geothermal heat and power plant. Combined, these two plants are referred to as the GLEP.

The cooled brine from the ICPP is received at the LEP where it is sent to the A-DLE system. LiCl is recovered from the brine on Vulcan's proprietary selective alumina-based sorbent VULSORB® and then purified and concentrated. The concentrated LiCl is then transferred to the CLP for conversion to LHM. Vulcan Group has

conducted extensive mineral processing and metallurgical testing to support the Project, including internal operation of multiple pilot plants. The lithium extraction technology type planned for use in the Project, A-DLE, is already commercially proven, and makes up 10 % of global lithium production today.

1.5.1 Current DLE Production and Supply Growth

Around 50% of lithium production today comes from hard rock sources, with 35% from brines and 15% from other sources such as mica and clay. Of the lithium production from brines, around 30% comes from direct lithium extraction methods, which represents approximately 10 % of total global lithium production (source: BMI). This share of the global lithium supply chain is set to grow to approximately 15% by 2030 according to BMI, due to its sustainability, cost, speed, and quality advantages over legacy methods (Goldman Sachs 2023).

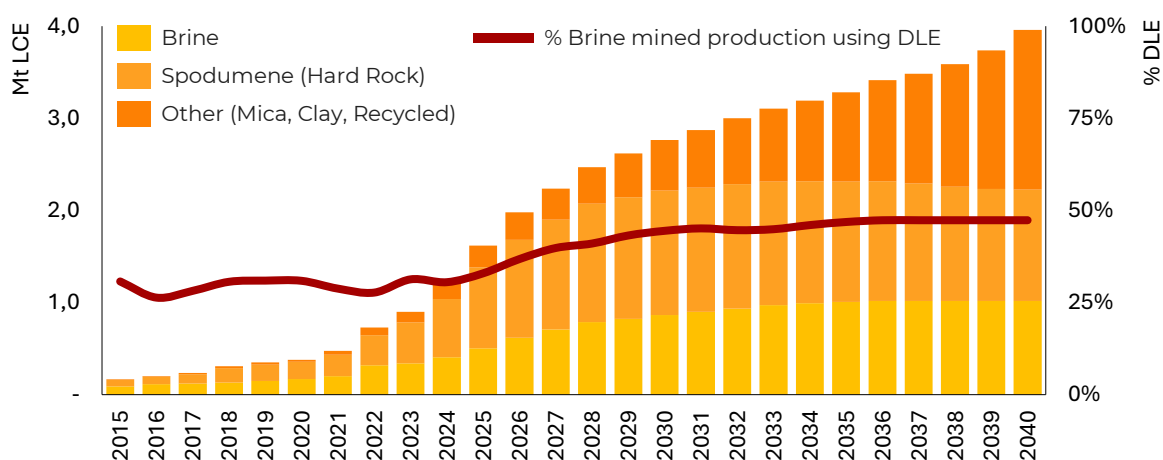


Figure 1.18: Lithium Production Growth Forecast with Direct Lithium Extraction Projection (Source: BMI)

1.5.2 Advantages of A-DLE Technologies

Low operating cost:

- Water is used to recover the lithium from the sorbent – no acid requirement means lower operating cost and less waste
- Usually requires heat to drive the adsorption process, so lowers operating cost and saves energy when applied to naturally heated sub-surface brines

Reduces environmental impact:

- Highly selective for Li with >90 % extraction efficiency, reduces or removes the need for legacy-method large scale evaporation ponds
- Smaller footprint with less land impact
- Salinity/heat and water driven process, reduces/removes the need for large quantities of chemical reagents used in legacy lithium production methods

Product quality:

- Produces very pure product relative to hard rock and reagent plus evaporation-pond type lithium brines, an advantage in the battery electric vehicle industry, which has very high product quality standards

A-DLE used commercially to produce lithium since 1996, rapidly increasing production:

- Arcadium Lithium, former Livent, is a global Top 3 lithium producer, has used A-DLE in its commercial lithium operations in Argentina for >25 years. Now increasing production in the second half of this decade (Livent 2022)
- Growth of five new Chinese producers in late 2010s, when lithium market started to grow linked to EVs: Lanke Lithium, Zangge Mining, Jintai Lithium, Minmetals Salt Lake, Jwell New Materials

New players entering the market between 2024 to 2026, including from the mining industry:

- French company Eramet is commissioning an A-DLE Project in Argentina for a 24,000 tpa LCE capacity, using a proprietary alumina-based adsorbent. (www.eramet.com)
- In Europe, dual Australian- and Frankfurt-listed Vulcan Energy has been developing its Project since 2018 and is now ready to move into the execution Phase, using its own, proprietary alumina-based adsorbent, with 24,000 tpa LHM capacity for Phase One
- Australian company Rio Tinto moving into the construction Phase of a lithium adsorption Project in Argentina, Rincon, using a proprietary adsorbent, having conducted pilot test work since acquiring the Project in 2022 for US\$ 825m (Rio Tinto 2022)
- SQM announced that it plans to spend \$1.5 billion on desalination and direct lithium extraction to improve lithium production in Chile. The Project would help increase lithium production capacity by more than 60 % from 2021 levels, the company says (www.cen.acs.org)
- Albemarle has also announced that it is entering the direct lithium extraction space, starting in Arkansas from existing bromine operations (Reuters 2023a)
- Exxon Mobil has recently announced it will start its first direct lithium extraction plant, building a first Phase 10,000 metric tonnes per year of lithium in Arkansas with partner Tetra Technologies in what has been labelled "Project Evergreen" (Reuters 2023b)



Figure 1.19: Examples of commercial A-DLE Plants

1.5.3 Vulcan Group's In-house A-DLE Intellectual Property

During Project development, Vulcan Group has tested a series of commercially available sorbents in its pilot plants. Based on test results achieved, the development team took the decision to use a sorbent with a lithium aluminate intercalate structure for Vulcan Group's A-DLE process. In line with this decision, Vulcan Group has developed its own proprietary sorbent, VULSORB® (Figure 1.20). VULSORB® belongs to a lithium extraction adsorbent family that has been used by different companies in multiple production assets over the past 25 years. Based on Vulcan Group's test work on its Upper Rhine Graben brine, VULSORB® offers higher lithium extraction capacity than other sorbents. VULSORB® can be used with other brines, both in Europe and globally. In addition, Vulcan Group has built up extensive application and analytical know-how for the use of VULSORB® in the A-DLE process.

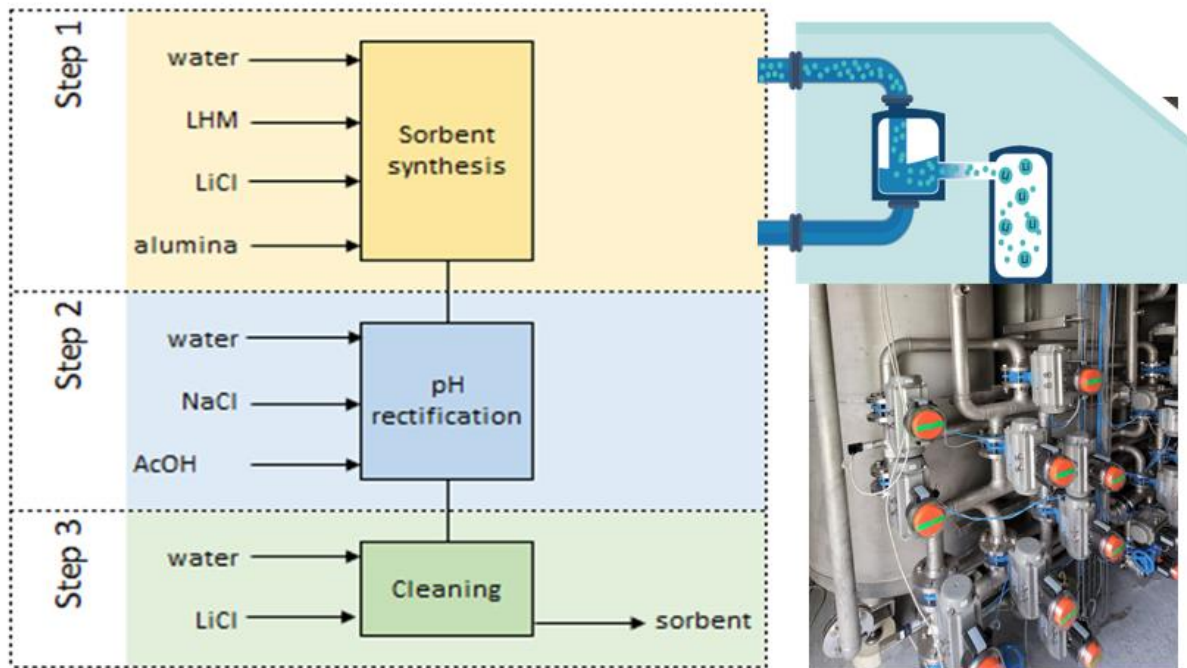


Figure 1.20: VULSORB®, Vulcan Group's Proprietary Sorbent for A-DLE Operation

The technology was initially selected in scoping work during 2018-2020. There followed three years of in-house laboratory test work successfully completed during 2021-2023 at Vulcan Group's in-house laboratories. In doing so, the technology was de-risked on Vulcan Group's brine chemistry (i.e., salinity, Li content, chemical composition, temperature) at multiple well sites, in a "live" operating environment.

Pilot Plant "PP1" has been operational since spring 2021 at the Insheim geothermal plant location. Lithium hydroxide was produced as early as Q4 2021 from this work. Since then, 5000+ cycles in 3 years of stable, non-stop operation have been performed, which show that these types of sorbents do not meaningfully degrade over a long period. A second, larger Pilot Plant "P1A" has also been in operation since fall 2022, with a total of 2000+ cycles of operation. This plant has demonstrated improvements in the process, including pressurising the system and removing the pre- and post-treatment steps. Data from pilot plants has been used to optimise and complete the engineering design for this IER.

VULSORB® performance was stable for two, consecutive 1000s non-stop A-DLE cycles with geothermal brine at 60 to 75 °C and 18 barg, as well as for 1000 of non-stop A-DLE cycles at atmospheric pressure, with a lithium extraction efficiency of >90 %. Further recent optimisations of Pilot Plant "P1A" have included modification of flow distributor in the column, leading to reduction of dead volume of liquid and optimised activation of VULSORB®, among other benefits. This has resulted in increased sorbent capacity of ~2300 mg Li/l of sorbent, and improved eluate quality. Vulcan Group is now ready to move into execution, construction, and operation of the commercial plant, designated the LEP.

The Lithium Extraction Optimisation Plant (“**LEOP**”) in Landau provides the lithium chloride solution to make battery grade LHM at the Central Lithium Electrolysis Optimisation Plant (“**CLEOP**”) in Frankfurt. The Vulcan Group designed LEOP (Figure 1.21) was commissioned and started up in Q2 2024. Combined with CLEOP, which has been operational from early November 2024, this represents a ca. €60m investment by the Company of an optimisation, operational training and product qualification facility to enable commercial operational readiness. The LEOP was built to deliver significant volume of product (i.e., LiCl solution) to CLEOP to make Battery Grade LHM.



Figure 1.21: Vulcan Group’s Lithium Extraction Optimisation Plant

1.5.4 Lithium Extraction Plant Execution Readiness

The Phase One Commercial scale LEP will be constructed next to the new Phase One geothermal plant in Landau at the GLEP site. The main function of the LEP is to receive lithium rich brine from the wells and extract lithium via A-DLE which creates a rich LiCl eluate product which continues to be processed and purified to remove key impurities such as calcium, magnesium, boron and silica, before being concentrated via evaporators / crystallisers to a final 38 wt% LiCl product which will be transported to the CLP at industrial park Höchst in Frankfurt for further conversion to LHM, as shown in the figure below. The lithium depleted brine that exits the A-DLE will then be pumped back to the well sites where it will be re-injected into the reservoirs like a standard geothermal operation.

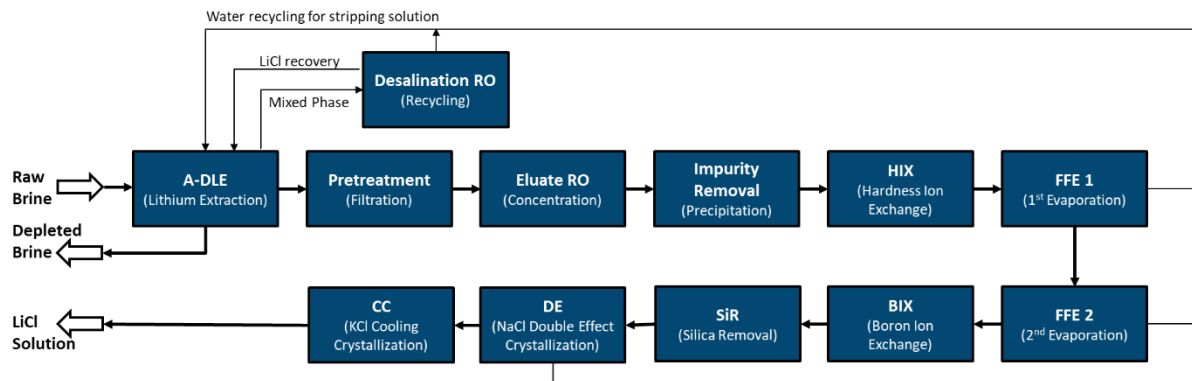


Figure 1.22: Block Process Vulcan Group's Commercial Lithium Extraction Plant

Major units: A-DLE system, reverse osmosis (“RO”) systems, ion exchange systems, evaporator/crystallizer, balance of plant (“BOP”).

The overall LEP process (Figure 1.22) (including the supporting BOP) is highly integrated with closed loop, minimal energy demand and small waste streams. The LEP also fulfils the function as the heart of the upstream Lionheart development, providing power and control to the distributed wellsites, from the central control room. The operations team at the LEP will control the integrated upstream process from well to LEP & ORC and return.

The LEP at Lionheart continues to target capacity of 24,000 tpa LHM equivalent in LiCl form.

The value improvements and simplifications identified in the Bridging Study have been further developed and confirmed by Vulcan Group's Validation exercise, working with a proposed EPCM partner. The current trend with the technology partners and the EPCM is for greater modularisation and shop fabricated equipment, reducing site execution scope. This strategy and the continued development of the ORC and High Voltage power systems into the project under the control of the EPCM continues to drive reductions in interface complexity.

CAPEX at the GLEP has developed post Bridging Phase, as the Vulcan Group have continued to develop and de-risk the project, defining and allocating scope based on feedback from the technology partners, maintaining the readiness to award, as well as continuing to progress the permitting and engineering maturation.

The maturation has continued with optimisation since the Bridging Phase completion by working with the selected technology partners. allowing equipment and key items to be sent to the market through RFP. All available package costs have been included as part of the update to the estimate. Opportunities remain in as Vulcan Group continues to optimise during detailed design.

The building permits for the GLEP have been submitted to the authorities, in line with Vulcan Group's timeline, and remain in progress as planned. Depending on the approval period, an application for early works execution may be submitted. Vulcan Group is currently targeting the commencement of commercial production of Phase One LiCl approximately 2.5 years from first receipt of funds from the drawdown of funds from its project financing. The financing and therefore execution timeline has been adjusted to align the

various financing workstreams, with applications for government grant funding progressing based on their individual timeframes.



Figure 1.23: Vulcan Group's Commercial Lithium Extraction Plant

1.6 LITHIUM CONVERSION

The final step in the Project's process is the conversion of lithium chloride concentrate to a battery grade LHM. This step will occur at Vulcan Group's CLP (Figure 1.24 and Figure 1.25), which will be built at industrial park Höchst near Frankfurt for sale to market. This process utilises electrolysis and crystallisation for the conversion. These are proven technologies for other chemical products and have been tested for Vulcan Group using its own pilot plant lithium chloride product, and by Vulcan Group's technology partner NESI using commercial scale cells. In 2022, samples of LiCl concentrate were tested and converted by Electrosynthesis Co. Inc through further concentration, purification and then conversion into lithium hydroxide monohydrate via electrolysis and crystallisation.

Similarly, to LEOP, an Optimisation Plant for the CLP named CLEOP, has been operational from early November 2024 for the LiCl to LHM process for the same purpose: an optimisation, operational training, and product qualification facility to enable commercial operational readiness.

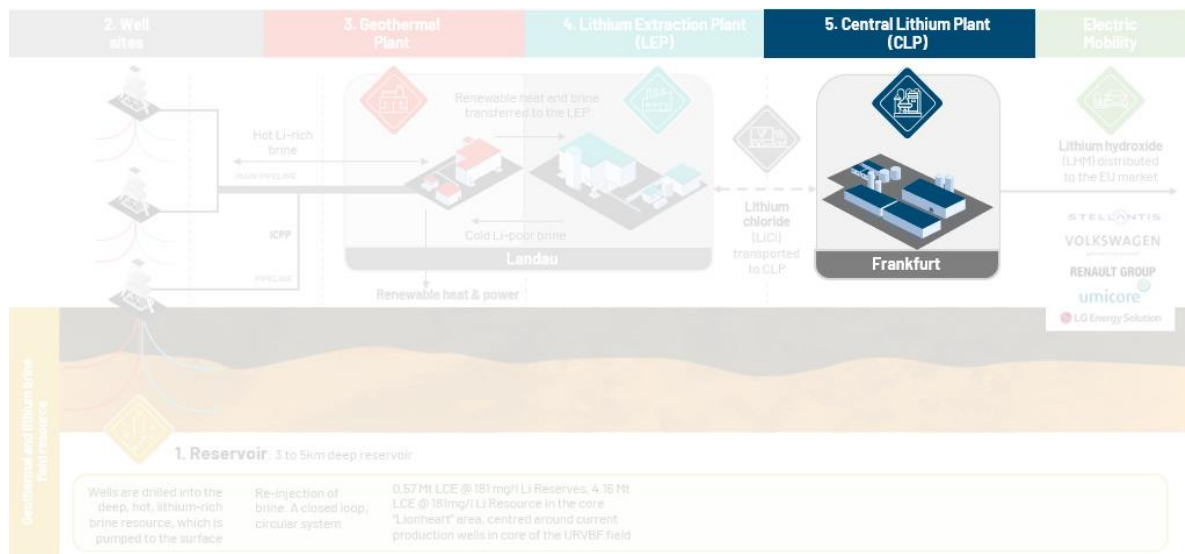


Figure 1.24: Phase One of the Project Central Lithium Plant

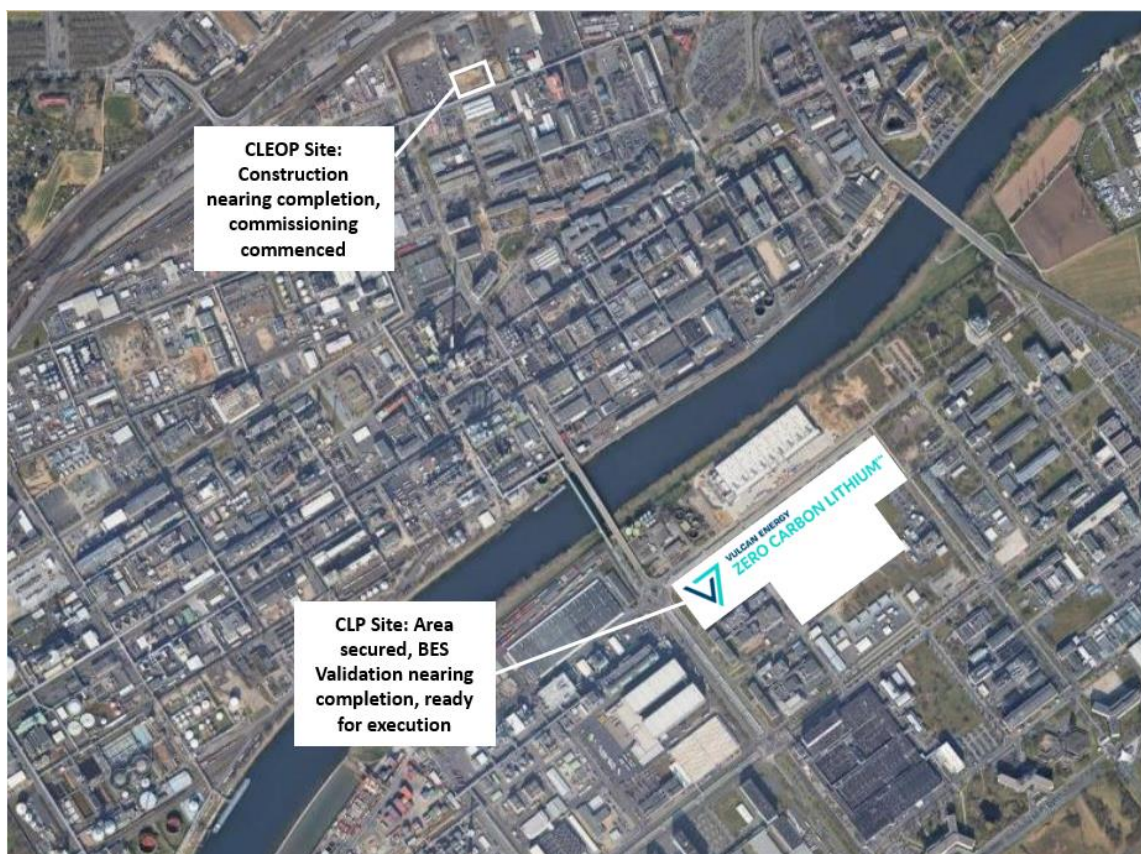


Figure 1.25: Industrial Park Höchst, CLEOP and CLP Sites

1.6.1 Overview

Lithium Conversion: proven, sustainable methods, strong partners, proven chlor-alkali type process, sustainable inputs, no fossil fuels.

- Vulcan Group will use the electrolysis process to convert lithium chloride into lithium hydroxide, which produces a very pure lithium hydroxide monohydrate battery grade product, important for EV industry.
- The main input is green power, in contrast to legacy methods which use large quantities of reagents and fossil fuels
- This is similar to the well-known chlor-alkali process used for >100 years to produce caustic soda (sodium hydroxide) from sodium chloride, since the cells for lithium chloride electrolysis are the same
- Chlor-alkali electrolysis process: there are 36 active plants in Germany, c. 5.4 Mt chlorine production capacity, of which 3.4 Mt is using the exact same membrane technology as Vulcan Group
- Vulcan Group is working closely with NESI, lithium chloride electrolysis experts in charge of detailed engineering
- NESI brings their extensive experience of testing production of lithium hydroxide from lithium chloride through electrolysis
- Test work with Electrosynthesis (partly owned by NESI) completed, better than battery grade specification LHM successfully produced from Vulcan Group's LiCl

1.6.2 Electrolysis Process

Multiple benefits, low risk

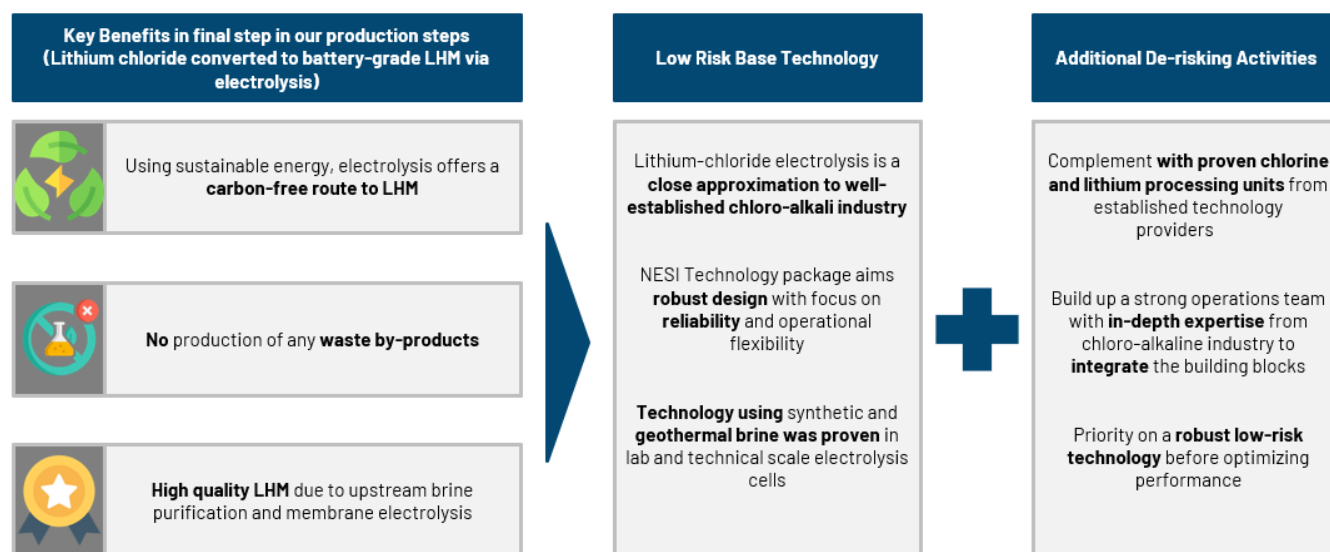
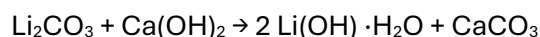


Figure 1.26: Electrolysis Benefits and De-risking Activities

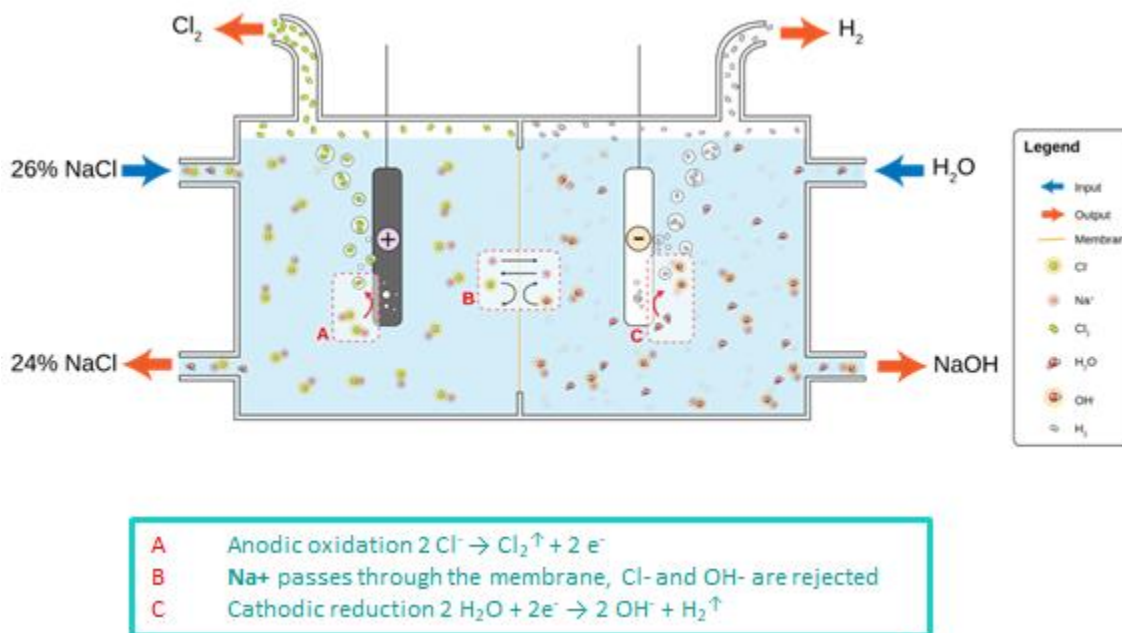
LiOH Electrolysis Process – very similar to chloro-alkali

- Traditionally $\text{LiOH} \cdot \text{H}_2\text{O}$ (LHM) has been produced from inorganic precursors by re-crystallisation of inorganic precursors, e.g.:



- The traditional process results in large consumption of chemicals and large by-production of inorganic waste

- Electrolysis (Figure 1.27) is an efficient way to convert LiCl to LiOH without consumption of chemicals and production of solid wastes. By using sustainable electrical power, the process can be de-carbonised
- The technology is similar to the chlor-alkali process, the well-established ‘work-horse’ of the ~ 100Mt chlor-alkali industry – only the *sodium ions* Na^+ are replaced by *lithium ions* Li^+



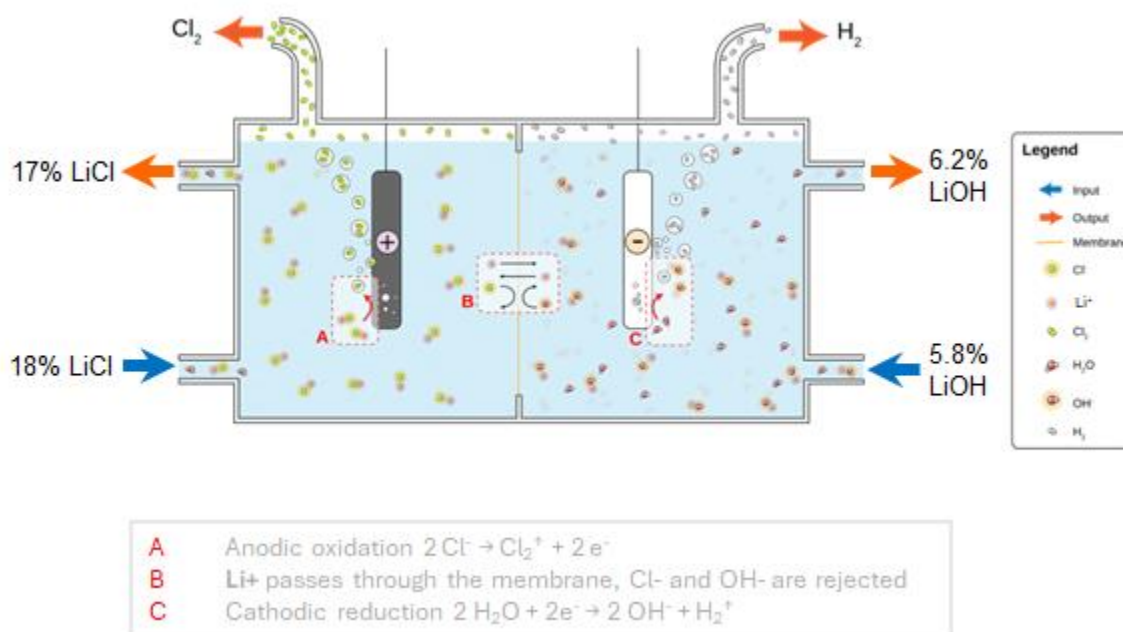


Figure 1.27: LiOH Electrolysis Process Detailing Close Similarities to Chloro-Alkali

NESI's Three-Stage Approach to Electrolysis Process Development (completed):

- Stage 1: Short and long duration brine testing on NESI cell
 - Aim: Replicate commercial NORSCAND® Cell
 - Cell: NESI's NS-01 cell with an electrode area of 0.015 m²: completed
- Stage 2: Full electrode height NORSCAND® Cell
 - Aim: Confirm cell performance scale-up
 - Cell: NESI's Full Electrode height cell with a total electrode area of 0.175 m²: completed
- Stage 3: Full commercial cell testing
 - Aim: Confirm cell performance at the full commercial scale
 - Cell: Commercial full-scale NORSCAND® cell with an electrode area of 1.5 m² (Like Vulcan Group's CLP plant): completed

NESI (NORAM Electrolysis Systems) (Figure 1.28) Electrochemical Demonstration Plant

- Objective: To electrolyze lithium chloride and produce lithium hydroxide
- Equipment: Proven full-scale 1.5 m² two-compartment electrolysis cell
- Results: Matched performance to prior tests on a full electrode height cell
- Significance: Confirmed the cell's suitability for designing the Vulcan Group optimisation plant and commercial plant. Completed.

Designing the LEP Process based on NESI's Specifications:

- Dilution levels of LiCl and LiOH
- Maintain low impurity levels (e.g., Ca, Mg, Sr, Ba, Si and P) at ppb or low ppm concentrations



Figure 1.28: NORSCAND® Cell Test Setup at NESI's BC Research Electrochemical Demonstration Plant Facility in Vancouver, Canada.

NORSCAND® Cell Test setup at NESI's BC Research electrochemical demonstration plant facility in Vancouver, Canada (Figure 1.28).

- Full commercial scale tests of the NORSCAND® Cell: completed
- Used to demonstrate that the expected performance of the commercial scale NORSCAND® cell fully matches the results of the test results of the NESI NS-01 test cell
- Reliable Process with potential Long-Term Optimisation

Demonstrating Battery-Grade LHM Production with CLEOP

- Both optimisation and commercial plants will be located at the Höchst Chemical Park
- Optimisation plant started production of LiOH in November 2024, and is expecting to produce LHM in Q4 2024, further being used for training staff in pre-commercial operational setting (Figure 1.29 and Figure 1.30) of (i) the electrolysis from LiCl to LHM solution; (ii) LHM crude and pure crystallisation; and (iii) LHM drying
- Optimisation plant built to start sending volume of product to off takers for pre-qualification testing.



Figure 1.29: Vulcan Group's Battery-Grade LHM Production with our Central Lithium Electrolysis Optimisation Plant

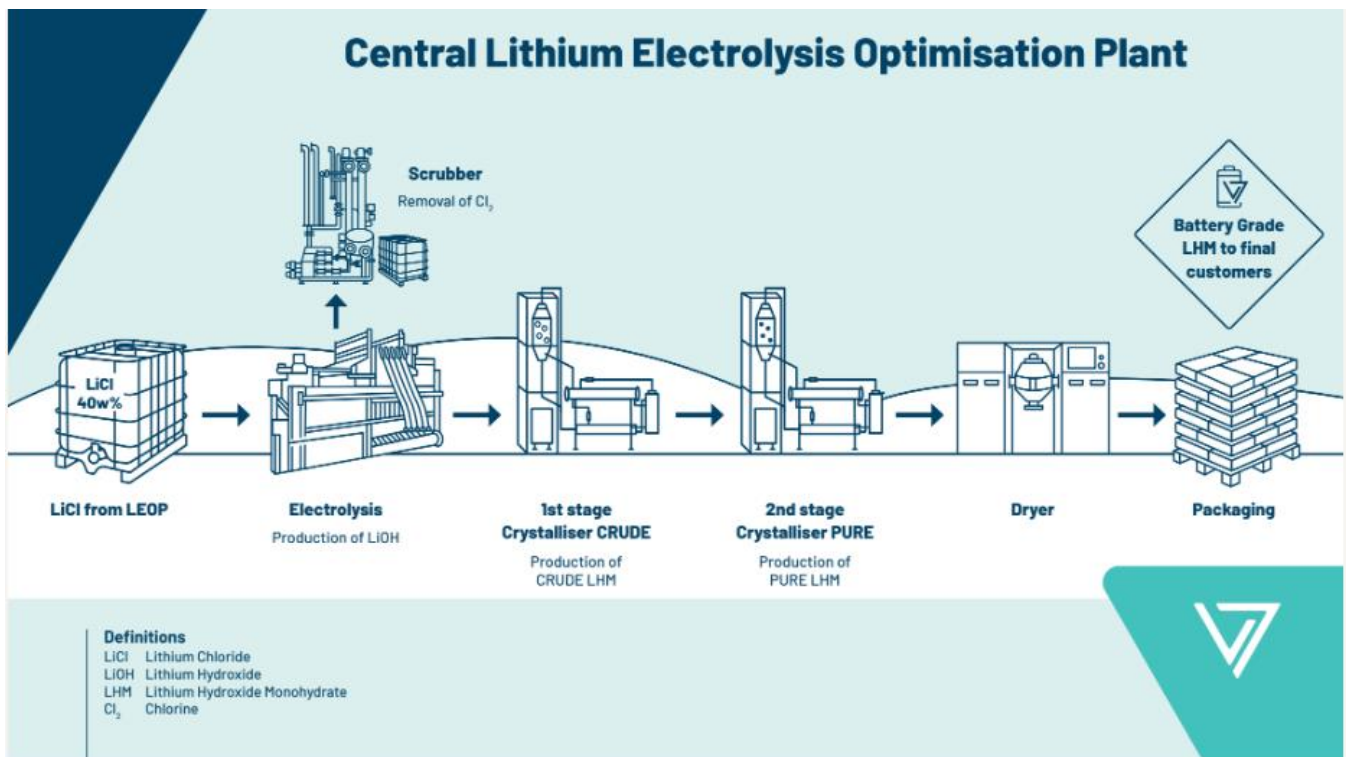


Figure 1.30: Vulcan Group's Central Lithium Electrolysis Optimisation Plant

With the CLEOP having commenced the start of lithium hydroxide production, this represents the first sustainable lithium hydroxide fully domestically produced in Europe, including upstream raw material, in one integrated supply chain.

1.6.3 Central Lithium Plant Execution Readiness

The Phase One Commercial scale CLP will be constructed at industrial park Höchst near Frankfurt (Figure 1.25). The main function of the CLP is to convert the lithium chloride coming from the LEP into battery grade lithium hydroxide monohydrate (LHM). This process utilises electrolysis and crystallisation for the conversion (Figure 1.31). In the period from the end of the Bridging Study to now, Vulcan Group has continued to work closely with the technology partners NESI and JordProxa to optimise the flow scheme around these proven technologies as part of maintaining the overall carbon neutral footprint for the operation.

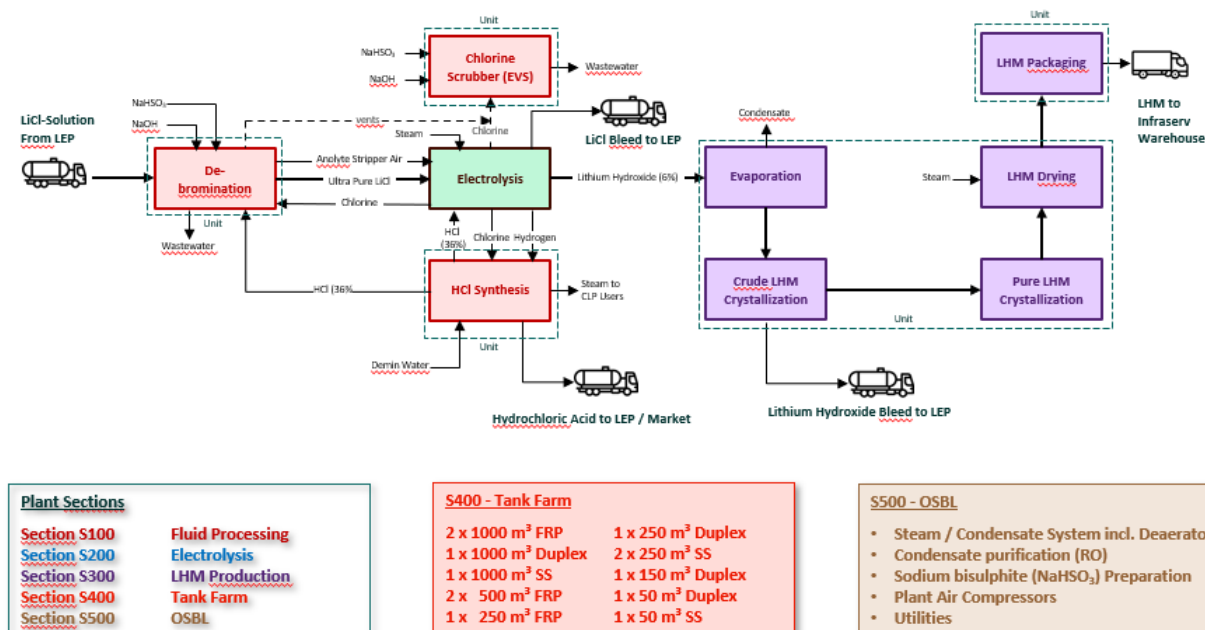


Figure 1.31: Commercial Central Lithium Plant, Detailing Simplistic Design Advantage

- Technology package: electrolysis (NESI)
- Major units: Crystallisation & Drying, HCl Synthesis, Emergency Vent Scrubber (“EVS”), Debromination, LHM packaging and loading, NaHSO₃-preparation system

The value improvements and simplifications identified in the Bridging Study have been confirmed by Vulcan Group’s Validation exercise, working with the Technology Partners and a proposed EPCM partner. The current trend with the technology partners and the EPCM is for greater modularisation and shop fabricated equipment, reducing site execution scope. This strategy and the parallel strategy of maximising utility supplies from Infraser, continue to benefit the project with reduced site complexity and scope under the EPCM.

CAPEX at the CLP continues to remain relatively neutral post Bridging Phase, however, Vulcan Group have continued to de-risk the project with a number of key technology and package suppliers ready to be awarded.

The Project definition has continued with optimisation since the Bridging Phase completion by working with the selected technology partners, allowing equipment and key items to be sent to the market. All available package costs have been included as part of the update to the estimate. Opportunities remain as Vulcan Group continues to optimise during detailed design.

The building permit for CLP has been submitted to the authorities as part of the overall BImSchG (federal law on emission control) application in March 2024 in line with Vulcan Group's timeline.

Vulcan Group is targeting start of production of the Phase One CLP approximately 2.5 years from first drawdown of funds from its project financing. The financing and therefore execution timeline has been adjusted to align the various financing workstreams with public funding schemes which Vulcan Group has applied for and is progressing to completion.

1.7 MARKET STUDIES AND CONTRACTS

Vulcan Group commissioned a detailed lithium market study and price forecast from Fastmarkets at the end of 2022 to be used in the DFS, as well as a further price forecast update from Fastmarkets in September 2023 for the Bridging Study. Following completion of the Bridging Study for Phase One, the Company commissioned an independent market study from Benchmark Mineral Intelligence ("**BMI**"), an independent cross-commodity price reporting agency ("**PRA**") in the metals and mining, critical minerals, and rare earths markets, dated 19 July 2024 (the "**BMI Analysis**"). The BMI Analysis was commissioned to support the project debt-financing process for Phase One of the Project. Vulcan has also sourced updated price forecasts from Wood Mackenzie and Fastmarkets and has provided a sensitivity analysis against all three forecasts.

Vulcan Group has concluded five long term lithium supply agreements, also referred to as offtakes, with five key players in the European lithium-ion battery supply chain:

- Lithium Supply Agreement with Renault Group ("**Renault**"): The original lithium offtake agreement between Vulcan Group and Renault was entered into in November 2021. The parties subsequently agreed to amendments of the original agreement, most recently in May 2024, in order to, among other things, postpone the commercial delivery start date and adjust the delivery volumes. Under the amended agreement, Vulcan Group is expected to sell to Renault between 11,000 and 29,000 metric tonnes of battery-grade LHM over an initial six-year term (which may be extended by an additional five years), with commercial delivery scheduled to commence in 2028. Conditions precedent to the start of commercial delivery include the commencement of commercial production and the lithium product being qualified for use in accordance with customary industry standards. Should one or more of these conditions precedents not be met or not be met in the designated timeframe, Renault has the right to terminate the agreement.
- Lithium Supply Agreement with Stellantis: The original lithium offtake agreement between Vulcan Group and Stellantis was entered into in November 2021. The parties subsequently agreed to

amendments of the original agreement, most recently in May 2024, in order to, among other things, postpone the commercial delivery start date and adjust the delivery volumes. Under the amended agreement, Vulcan Group is expected to sell to Stellantis between 172,500 and 267,000 metric tonnes of battery-grade LHM over an initial ten-year term (which may be extended), with commercial delivery scheduled to commence in 2027. Stellantis expects to use the battery-grade LHM at its European battery production facilities across Italy, Germany and France. Conditions precedent to the start of commercial delivery include the commencement of commercial production and the lithium product achieving full product qualification. Should one or more of these conditions precedents not be met or not be met in the designated timeframe, Stellantis has the right to terminate the agreement.

- **Lithium Supply Agreement with LG Energy (“LG Energy” or “LGES”):** The original lithium offtake agreement between Vulcan Group and LG Energy was entered into in January 2022. The parties subsequently agreed to amendments of the original agreement, most recently in April 2024, in order to, among other things, postpone the commercial delivery start date and adjust the delivery volumes. Under the amended agreement, Vulcan Group is expected to sell to LG Energy between 25,000 and 45,500 metric tonnes of battery-grade LHM over an initial five-year term (which may be extended by an additional five years), with commercial delivery scheduled to commence in 2027/28. Conditions precedent to start of commercial delivery include securing of project finance, construction and commissioning of the plants, commencement of commercial production by end of 2028 and the lithium product meeting agreed specifications by the agreed timeline. Should one or more of these conditions precedents not be met or not be met in the designated timeframe, LG Energy has the right to terminate the agreement.
- **Lithium Supply Agreement with Umicore NV (“Umicore”):** The original lithium offtake agreement between Vulcan Group and Umicore was entered into in October 2021. The parties subsequently agreed to amendments of the original agreement, most recently in May 2024, in order to, among other things, postpone the commercial delivery start date and adjust the delivery volumes. Under the amended agreement, Vulcan Group is expected to sell to Umicore between 23,000 and 35,000 metric tonnes of battery-grade LHM over an initial five-year term (which may be extended by an additional five years). Conditions precedent to the start of commercial delivery include the securing of project finance by the end of 2024 and the successful qualification of sample volumes from the commercial plant to specification. Should one or more of these conditions precedents not be met or not be met in the designated timeframe, Umicore has the right to terminate the agreement. Commercial delivery is scheduled to commence in 2026, however Vulcan expects to push out this date following discussions with Umicore in Q1.
- **Lithium Supply Agreement with Volkswagen AG (“Volkswagen”):** The original lithium offtake agreement between Vulcan Group and Volkswagen was entered into in December 2021. Under the agreement, Vulcan Group is expected to sell to Volkswagen 38,000 metric tonnes of battery-grade LHM over an initial five-year term (which may be extended by an additional five years), with commercial delivery originally scheduled to start in 2026, but expected to be deferred to a future phase of production beyond Phase One (with the timing yet to be defined) as part of a planned amendment to the agreement. The parties have also agreed to a first right of refusal to invest in

additional capacity in the Project. Conditions precedent to the start of commercial delivery include the lithium product achieving full product qualification and the development of a future phase beyond Phase One, with the timing yet to be defined. Should one or more of these conditions precedents not be met or not be met in the designated timeframe, Volkswagen has the right to terminate the agreement.

Together, the volumes of lithium hydroxide to be delivered under these five offtake agreements will exceed Vulcan Group's Phase One capacity of 24,000 tpa of LHM but some of the offtake volume will be allocated to upcoming phases of production beyond Phase One.

1.8 PERMITTING, ENVIRONMENTAL STUDIES, AND SOCIAL AND COMMUNITY IMPACT

Global sustainability consulting group, ERM, finalised a bankable Environmental and Social Impact Assessment ("ESIA") for Phase One of the Project as part of financing efforts aligned with International Finance Corporation ("IFC") Performance Standards, Equator Principles IV ("EP4"), EU Directives and German Regulations. Vulcan publicly disclosed this report including a Non-Technical Summary on 16 September 2024. The study has determined:

- The Project has no potential impact determined as greater than "minor" post mitigation measures and notes several positive impacts to both people and the planet
- All construction work and infrastructure associated with the Project near Landau and Insheim will be located within areas of modified habitat (industrial land and farmland) and, according to LANIS (state database of the RLP nature conservation administration), there are no legally protected habitats according to § 30 BNatSchG in the planned infrastructure development area and its immediate surroundings
- The Project does not have any aquatic ecosystems associated with surface water features such as rivers, streams, wetlands or freshwater lakes or man-made reservoirs. The nearest large river system being the Rhine River, located roughly 14 km east of the Project
- As part of the Environmental and Social Impact Assessment, Vulcan Group has built a Stakeholder Engagement Plan that remains active and aligned with international best practices and standards, especially International Finance Corporation ("IFC") Performance Standards on Environmental and Social Sustainability and Equator Principle IV ("EP4")

The main regulatory requirements for the Project development approvals are set under the German Federal Mining Act, since the Project is intended to recover a mineral regulated under this act. Furthermore, the Federal Law on Emission Protection (Bundesimmissionsschutzgesetz BImSchG), Environmental Impact Assessment Act (gesetz über die Umweltverträglichkeitsprüfung) (EIA Act) and The Federal Building Code (BauGB) are important areas of law. Many other major Acts, codes and regulations are followed in order to acquire permits and set operating standards. Vulcan Group is engaged in direct communication with the regulating authorities to ensure transparency with regards to its Project plans and operations. Vulcan Group has engaged in the environmental assessment activities early in the Project planning process to accommodate stakeholder consultation and regulatory approval timelines.

Vulcan Group has an extensive communication strategy which has been able to achieve broad media coverage across many levels of stakeholders Internationally and within Europe, Germany, and local regions,

utilising social media, websites, and other forms. A notable measure of engagement is the information truck and information centres. These operate independently of Projects and on an on-going basis, are used to share information and answer questions about company mission, values and on-going and future Projects. There is a visitors' centre at the Insheim Geothermal Plant in which local stakeholders are encouraged to come visit the plant and learn about carbon neutral lithium production. Vulcan Group's stakeholder engagement efforts have resulted in mostly positive perceptions of the Project, in particular the emphasis on the value-added results from the Project for local stakeholders, such as renewable heat. In 2023, the Landau City Council voted in favour of geothermal development to supply the City with renewable heat, and in favour of entering into negotiations with Vulcan Group to develop the GLEP at an industrial site in Landau.

All material Phase One permits for erecting the project (Figure 1.32) are currently progressing on track, or with mitigations in place to prevent delay, as shown in section 8.1.3.3 of the Prospectus (Validation / New developments since the Bridging Study) and section 7.1.3.3 of the Information Memorandum.

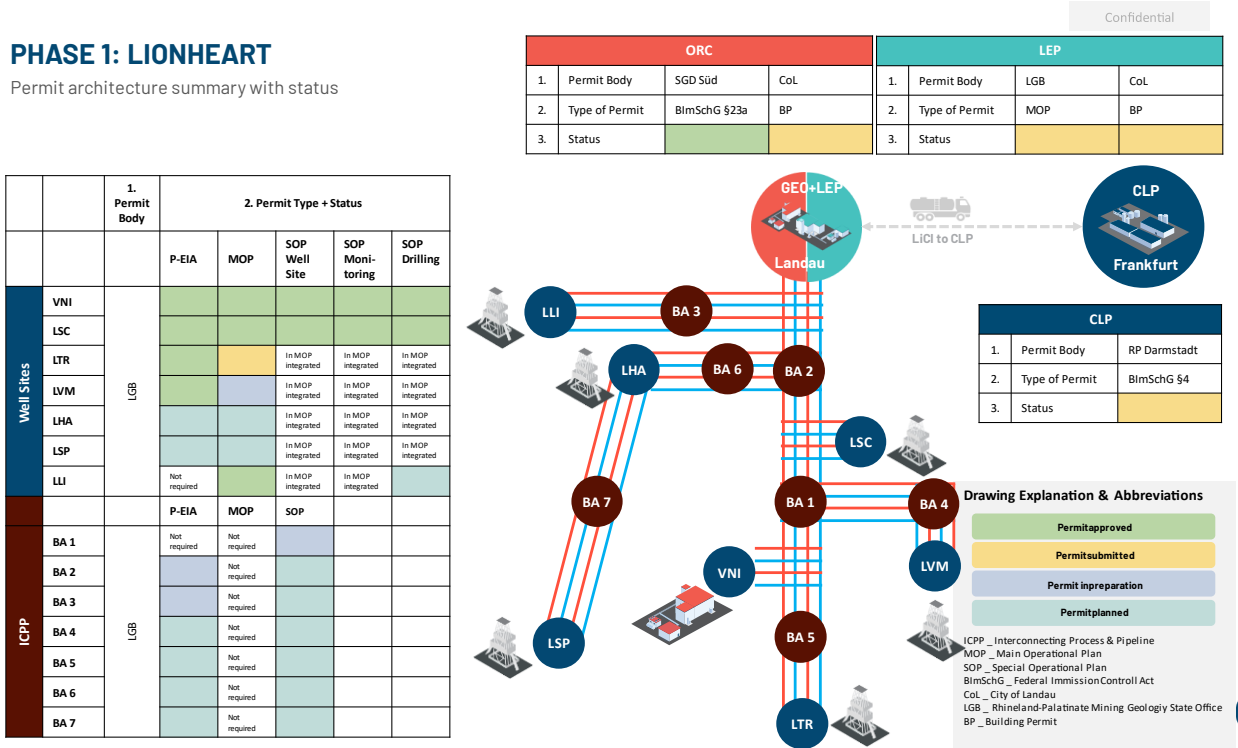


Figure 1.32: Project related permits at end Nov 2024

1.9 SCHEDULE

Vulcan Group has developed a validated schedule which has been re-baselined assuming first receive of funds from project financing in Q1 2025. The integrated schedule is shown in (Figure 1.33). A summary is as follows:

- Start of renewable heat production in 2027 to augment current renewable power production and provide additional revenue

- Start of lithium chloride commercial production from LEP: 2027 (being approximately 2.5 years from receipt of funds from the Envisaged Equity Financing)
- Start of lithium hydroxide commercial production from CLP: 2027 (being approximately 2.5 years from receipt of funds from the Envisaged Equity Financing)
- Schedule adjusted to align with public funding application timelines in 2024, to be able to potentially integrate public funding into financing
- Vulcan Group is undertaking further pre-execution works in the interim to reduce risk even further and is preparing all major contracts for award, for the commencement of construction for Phase One, subject to full financing.

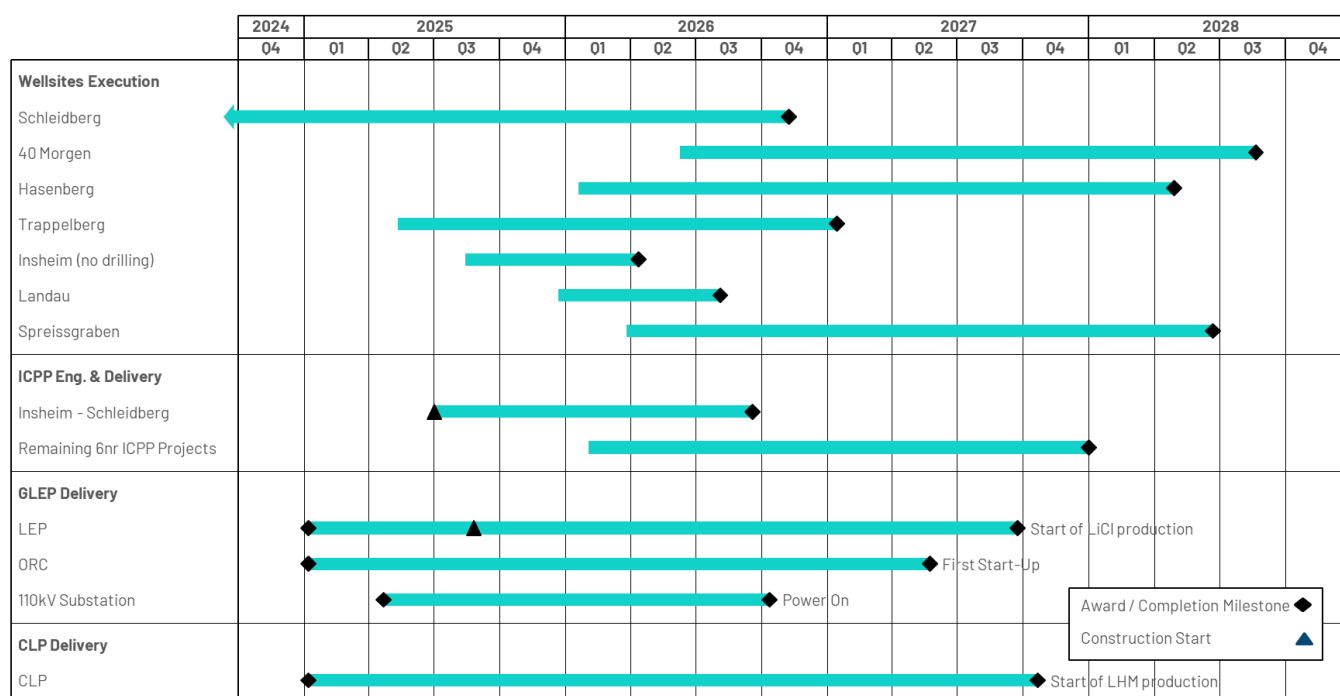


Figure 1.33: Re-Baselined Schedule, Showing Start of Production for New Heat Delivery, LiCl Production, LHM Production

1.10 ECONOMIC ANALYSIS

Vulcan Group has continued to validate and improve the robustness of capital expenditure, operating expenditure, scheduling elements, and contracting approach and terms with EPC / EPCM contractors and key equipment suppliers as part of the EOV process. The economic modelling approach assessed a fully integrated Phase One of the Project comprising all different steps of the production process. In practice, two separate SPVs were still created to cover key matters such as trade tax and mining law:

- SPV1: Natürlich Südpfalz GmbH & Co KG
- SPV2: Vulcan Projektgesellschaft 2 GmbH

SPV1 includes the equipment and processes associated with land, wells, ICPP, ORCs and LEP. SPV1's outputs include energy in the form of electricity, steam, and heat. Part of the heat is consumed internally and heat offtakes agreements with local municipalities are in advanced negotiations. The electricity

produced from the ORC is sold to the grid under the German feed in tariff. SPV1’s outputs also include LiCl solution which is sold to SPV2. LiCl is always assumed in the form of LHM equivalent across this Section.

SPV2 includes the CLP. SPV2’s outputs include LHM and HCl. The LHM will be sold to a marketing company which will be part of the SPV-sphere and take over the lithium offtake agreements from Vulcan Energie Ressourcen GmbH. This marketing company will sell the final LHM directly to the offtakers. HCl is sold directly to the market.

VER GEO LIO GmbH includes both SPVs (Figure 1.34). VER GEO LIO GmbH is a wholly owned subsidiary of the Company. The marketing company mentioned above which will be a wholly owned subsidiary of VER GEO LIO GmbH will hold the long-term lithium supply agreements (offtakes) and will sell LHM to its offtakers and the open market.

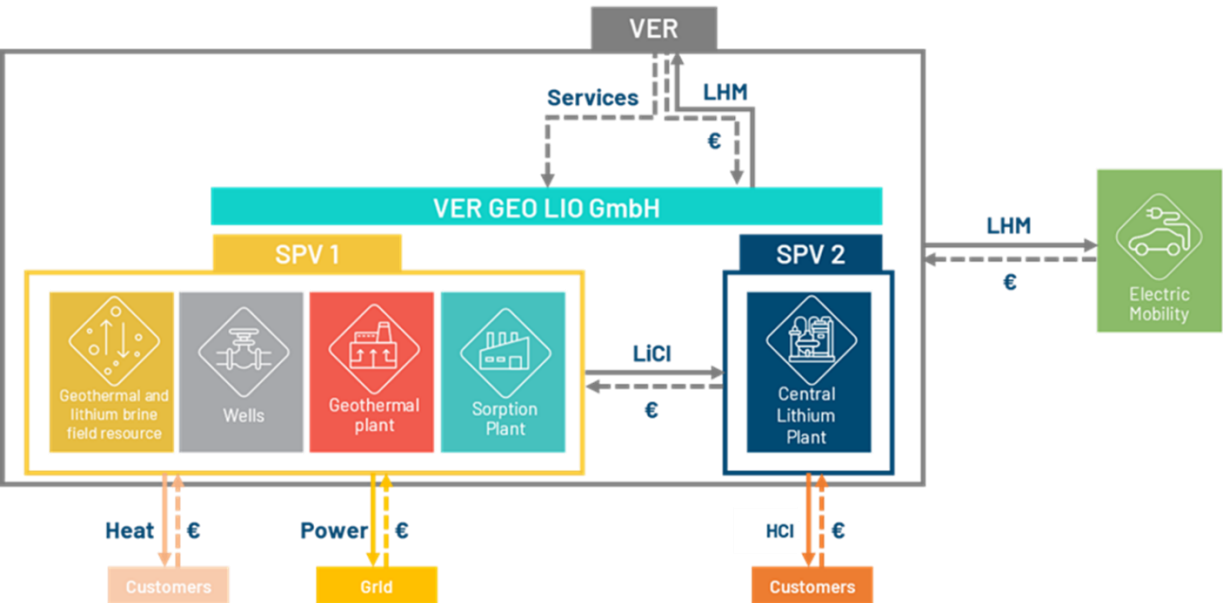


Figure 1.34: Value Flow of Target Operating Model

The economic analysis is based on the following assumptions and parameters. Following Table 1.4 provides an overview of the most relevant data.

Table 1.4: Production Target Material Assumptions and Parameters - General and Economics

General assumptions and parameters	
FX EUR/USD	1.10
NPV discount rate	8 %
Tax rate	30.825 %

General assumptions and parameters	
State royalty	0 % ²
Brine royalty	Applied on 2 locations
Life of Mine	30 years
Life of Mine production target	0.595Mt LHM
LHM grade	57 %

1.10.1 Forecast Pricing

1.10.1.1 LHM

The LHM price forecast has been updated for the latest consensus pricing information. The modelled LHM price forecast, presented below, represents the average LHM forecast price of BMI, Fastmarkets and Wood Mackenzie.

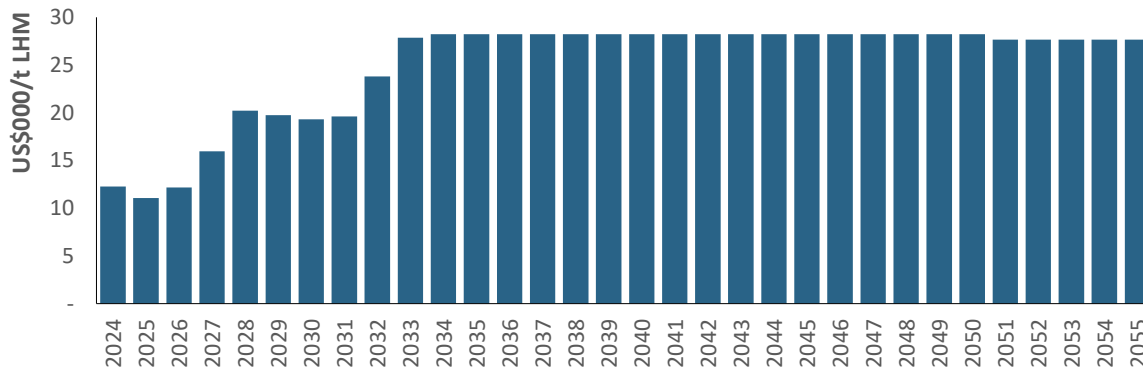


Figure 1.35: Average LHM Forecast Price of BMI, Fastmarkets and Wood Mackenzie (US\$000/t), excluding inflation

Despite volatility in lithium prices, Vulcan Group has mitigated the potential impact on revenues by securing offtake agreements with high quality European-focused offtake partners (Figure 1.36), which are all binding, take-or-pay, with agreed pricing mechanisms. The pricing mechanisms are a basket of fixed, floor-ceiling and fully floating prices which provides more stability to lenders during payback period.

² See Section 5.4 under JORC table for explanation on royalties.



Figure 1.36: Vulcan Group's Key LHM Offtake Partners. Note: Volkswagen Group's offtakes are for a future phase of production beyond Phase One, with the timing yet to be defined (see section 1.7 for details of offtake agreements).

1.10.1.2 Power

Vulcan Group will sell power to the grid from its geothermal facilities. Vulcan Group is subject to the German Renewable Energies Act (*Erneuerbare-Energien-Gesetz: EEG*) which applies to all plants for the generation of electricity from renewable energies and therefore also to the geothermal plants which Vulcan Group operates and intends to operate as a part of its renewable energy business.

The EEG provides a subsidised remuneration regime for electricity generated and sold to the grid using geothermal resources. Under the revised EEG, the existing feed-in tariff (252 EUR/MWh) will reduce by 0.5% each year for new geothermal projects commissioned after 2024, however once the plant is operational, the applicable tariff will be fixed and guaranteed for 20 years from the commissioning date, which equates to 252 EUR/MWh in the case of the Insheim Plant (2012) and approximately 247 EUR/MWh based on the expected commissioning date of D12 (2027). In periods where spot prices are above the feed-in tariff level, as has recently been the case, Vulcan Group can sell the electricity produced at the higher spot price, in which case the feed-in tariff acts as a "floor price". In Vulcan Group's financial model, Aurora Energy Research's power price forecast is used, and prices do not exceed the feed in tariff. The feed-in tariff means that on average, over the first 20 years of the Project, Vulcan Group is expected to be able to sell power to the grid at a price approximately 160 % higher than the forecast base load price (Figure 1.37).

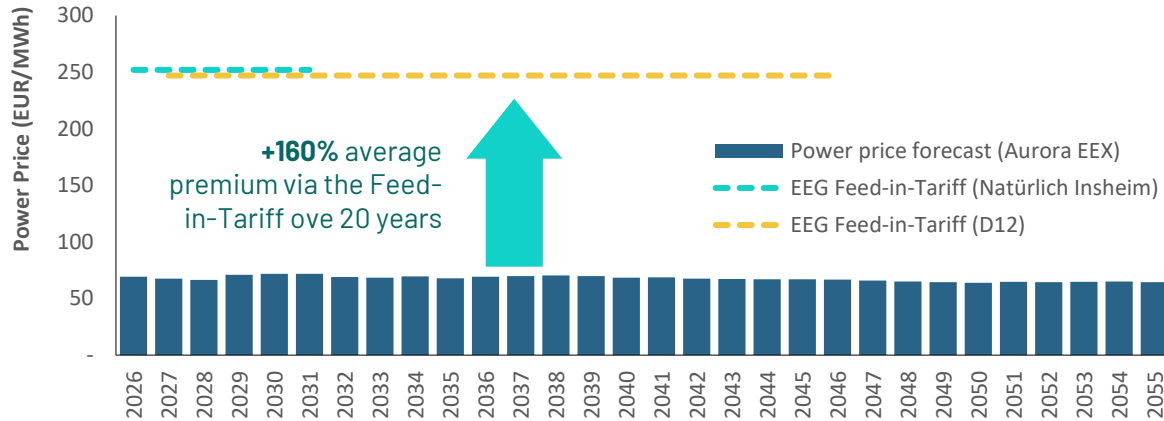


Figure 1.37: Comparison of Feed-in-Tariff and Power Price Forecast (€/MWh), excluding inflation

1.10.1.3 Heat

Vulcan Group will produce renewable heat from its geothermal plants and is in advanced discussions with local municipalities to sell all renewable heat production via the local energy utility as part of Phase One.

1.10.1.4 By-Product Chemical

Vulcan Group will produce one by-product at its CLP; Hydrochloric Acid (“**HCl**”) which is derived from chlorine production from the electrolysis process. HCl is a basic chemical with thousands of customers in Europe and can be sold locally. This by-product is non-core to Vulcan Group’s business model.

1.10.2 Production Assumptions

1.10.2.1 Lithium Dilution

The produced lithium content of the brine will decrease over time as the concentration of lithium in the reservoir reduces with ongoing production and reinjection. This will impact revenues as with the same amount of brine extracted, less lithium is being produced. Vulcan Group’s financial model takes into consideration lithium depletion at each well site but does not take into consideration a potential recharge of the lithium being leach-out from the mica rocks over time, which is an upside. Brine production has been increased over the first few years to maintain a lithium production “plateau”. Once operational, Vulcan is also likely to add additional wells as part of sustaining CAPEX in the future, to further maintain plateau, but this has not been modelled here.

On average, in the Project area, lithium concentration drops by -1.8 % per year based on the base case estimate (Figure 1.38).

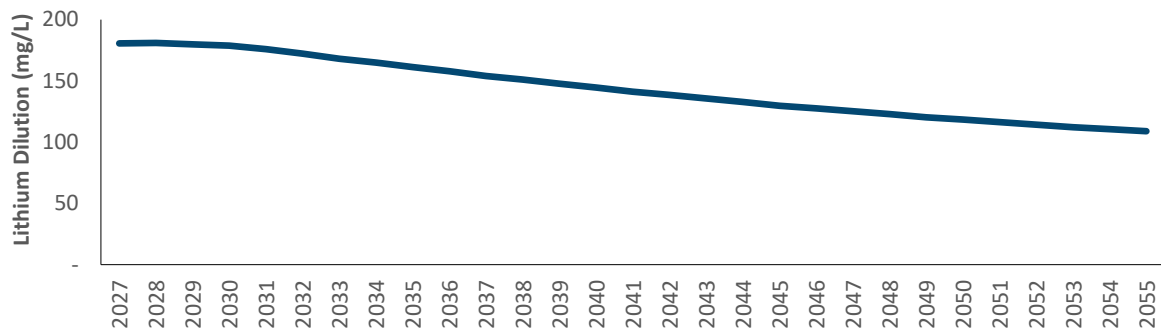


Figure 1.38: Base Case Lithium Dilution (mg/L)

1.10.2.2 Lithium Production

Taking into consideration the factors listed below, Phase One LHM annual production output has been calculated and displayed in the graph below (Figure 1.39).

- Brine flow rate
- Lithium concentration in the brine
- Lithium dilution over time
- Lithium recovery rate at the LEP
- LEP stream factor
- CLP Li recovery
- Production ramp-up rates

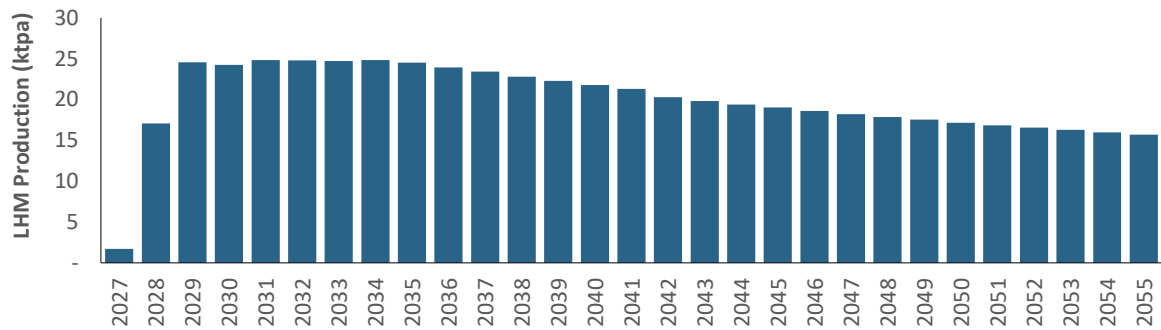


Figure 1.39: Base Case LHM Production Forecast in Phase One (ktpa)

1.10.2.3 Energy Production

The forecast Phase One energy output has been displayed in the graph below, with long-term capacity of around 275 GWh/a power and 560 GWh/a heat.

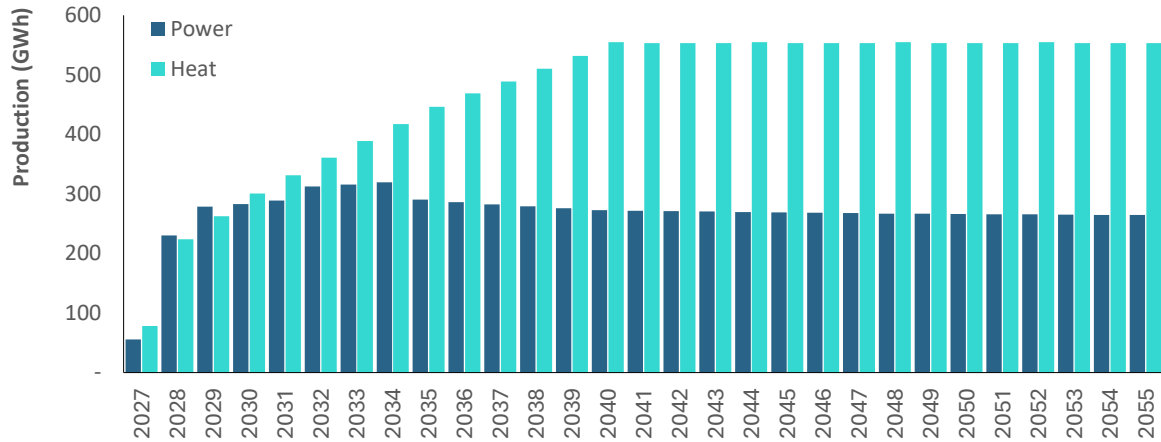


Figure 1.40: Energy Production Forecast in Phase One (GWh/a)

1.10.3 Capital Expenditure and Operating Costs

1.10.3.1 Estimated Operating Costs

By far the largest cost component for Vulcan Group is expected to be energy in the form of power. It accounts for 48 % of the total estimated OPEX. Maintenance is expected to be the second largest OPEX component, accounting for 18 % of the total.

Table 1.5: Key operating cost inputs (€/M/a) estimate, 2030. The OPEX estimate is based on production of c.24,000t LHM.

	LEP €/M/a	CLP €/M/a	LEP+CLP €/M/a	Geothermal €/M/a	OPEX % of total
Power	17	24	41	22	48 %
Maintenance	7	7	14	10	18 %
Labour	6	8	13	2	11 %
Materials (Ex reagents)	5	-	5	-	4 %
Reagents	6	2	7	-	6 %
Sorbent	2	-	2	-	1 %
Utilities (Ex power)	2	0	2	-	1 %
Logistics	2	3	5	-	3 %
Other Fixed Costs	3	6	9	1	8 %
Total	48	50	98	34	100 %

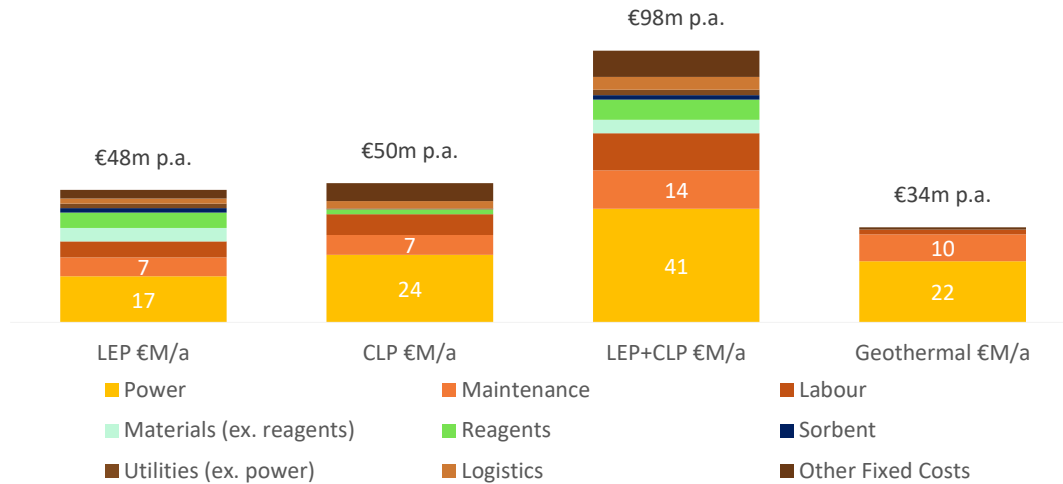


Figure 1.41: Key operating cost inputs (€/M/a) estimate, 2030. The OPEX estimate is based on production of c.24,000t LHM and including an average power price over the Project life, excluding inflation

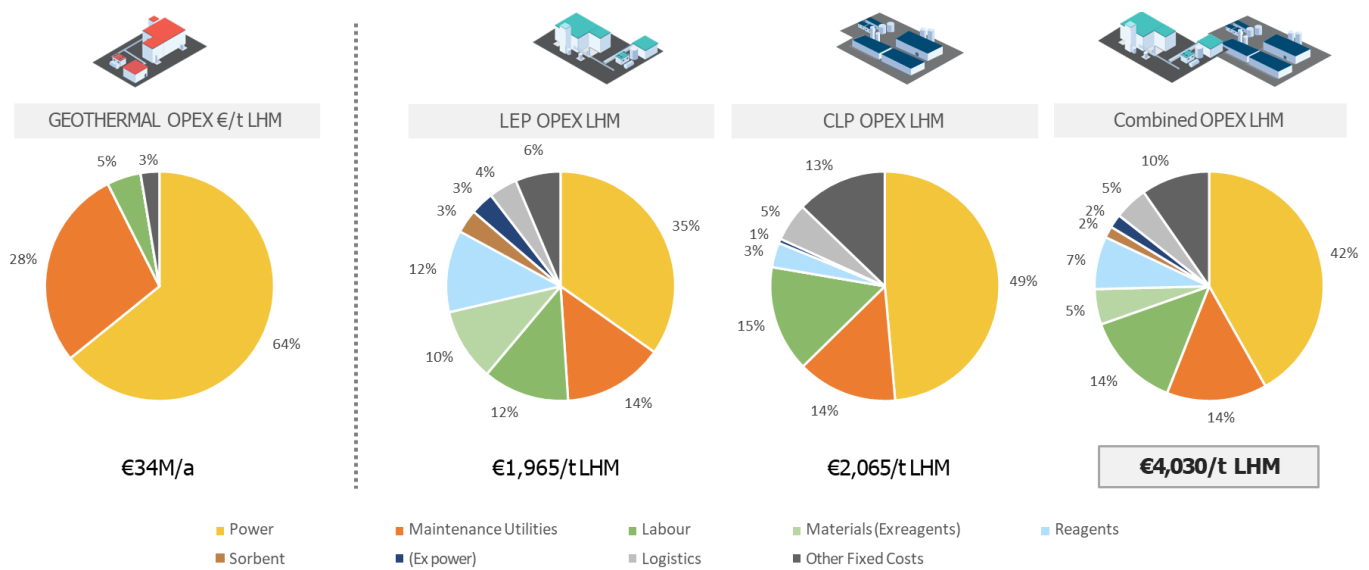


Figure 1.42: Key operating cost inputs (€/M/a and €/t LHM) estimate, 2030. The OPEX estimate is based on production of c.24,000t LHM and including an average power price over the Project life, excluding inflation

When looking at lithium specific costs, the main difference with other lithium assets, especially hard rock converters in China, is that Vulcan Group has very low feedstock costs. LHM OPEX is expected to be dominated by electricity costs with 42% and maintenance for 14%. The Project is expected to have very limited consumption of reagents, with 7% of total costs, which usually represents the main operating costs for lithium producers in South America. Sorbent costs are also limited, estimated at around 2%.

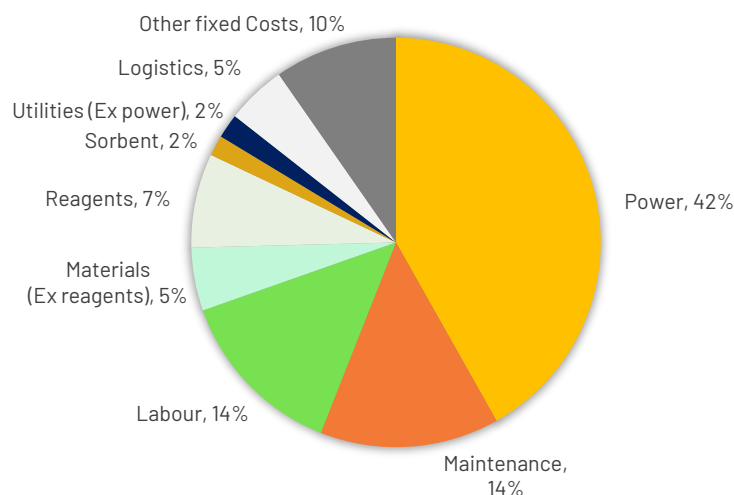


Figure 1.43: Key lithium operating cost inputs (€/t LHM) estimate, 2030 (LEP and CLP). The OPEX estimate is based on production of c.24,000t LHM and including an average power price over the Project life, excluding inflation

1.10.3.2 Electricity

Electricity cost is expected to be the largest operating cost in Vulcan Group's Project. The cost of electricity is calculated by using a long-term power price forecast for the German grid and adding location and consumption specific costs including fees and taxes. The forecast displayed below (Figure 1.44) does not including grid costs as it is site specific but is displaying the long-term power price forecast as supplied by Aurora Energy Advisory.

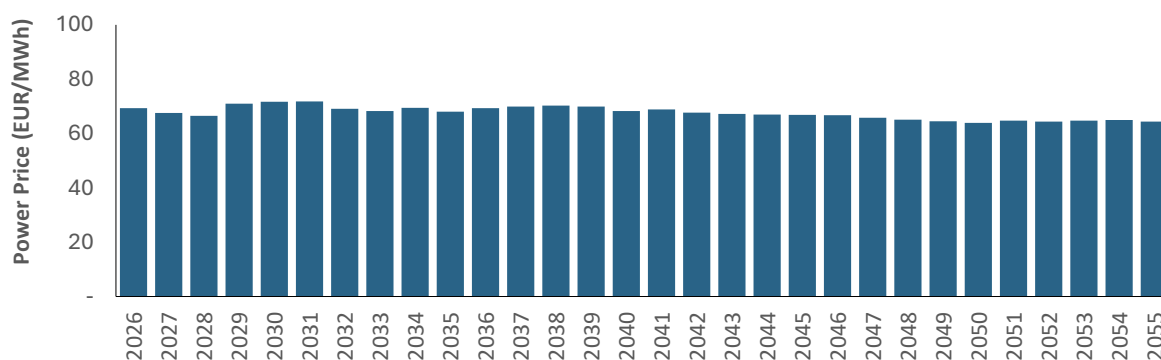


Figure 1.44: Power Market Price Forecast, Aurora EEX (€/MWh), excluding inflation

1.10.3.3 Global Cost Curve Position

The forecast C1 cost for Phase One, of around €4,030/t LHM, places the Project at the bottom of the global cost curve for LHM. Vulcan Group benefits from not having to purchase feedstock of its lithium production, which is the main OPEX component for all spodumene converters, mostly located in China. Vulcan Group also benefits from the highly efficient A-DLE production that uses limited volume of reagents, which is the main OPEX component for brine producers in South America (Figure 1.45).

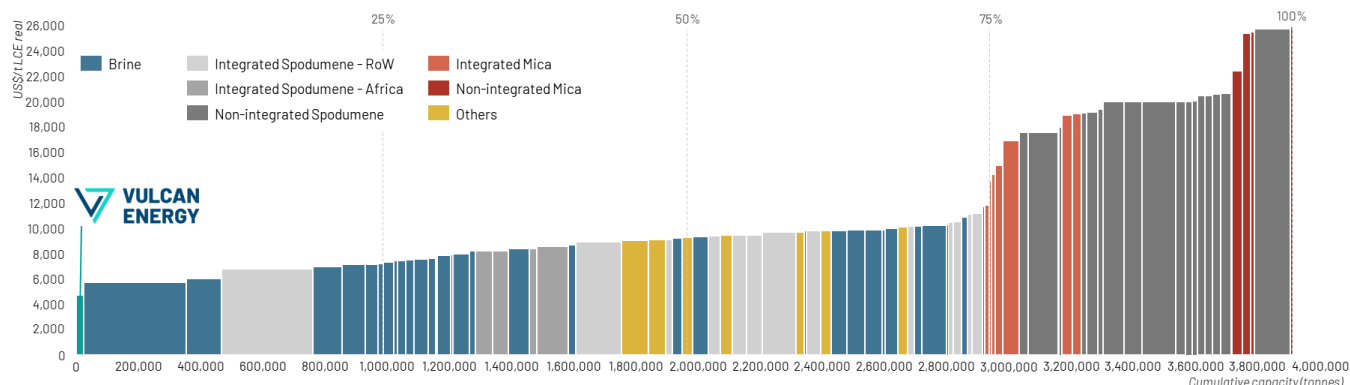


Figure 1.45: Global lithium C1 (LCE) cost curve (unweighted supply). C1 costs for Phase One sits in the lowest cost quartile for highly competitive supply – driven by A-DLE lithium recoveries and low-cost energy. Vulcan Group's C1 costs are estimated at US\$5,037/t LCE or €4,030/t LHM, using a 1.136 LCE to LHM ratio and an exchange rate of 1EUR:1.10USD. Source: BMI, BNP Paribas

1.10.3.4 Estimated Capital Expenditure

Vulcan Group has applied capital expenditure in-line with the EOV estimate, developed jointly with Vulcan's partners. The total capital expenditure required for Phase One is expected to be approximately €1,431M, which includes contingencies of circa 11%. The major capex categories including contingency allocation for Phase One are described in the table below.

Table 1.6: Keys Capital Costs - Phase (€M) estimate

Major capex categories	Estimated capex (mEUR)	% of total capex
Drilling	€276	19%
Well Sites	€104	7%
ICPP	€220	15%
ORC	€110	8%
LEP, BoP & 110kV	€400	28%
CLP	€321	22%
Total capex (Phase One)	€1,431	

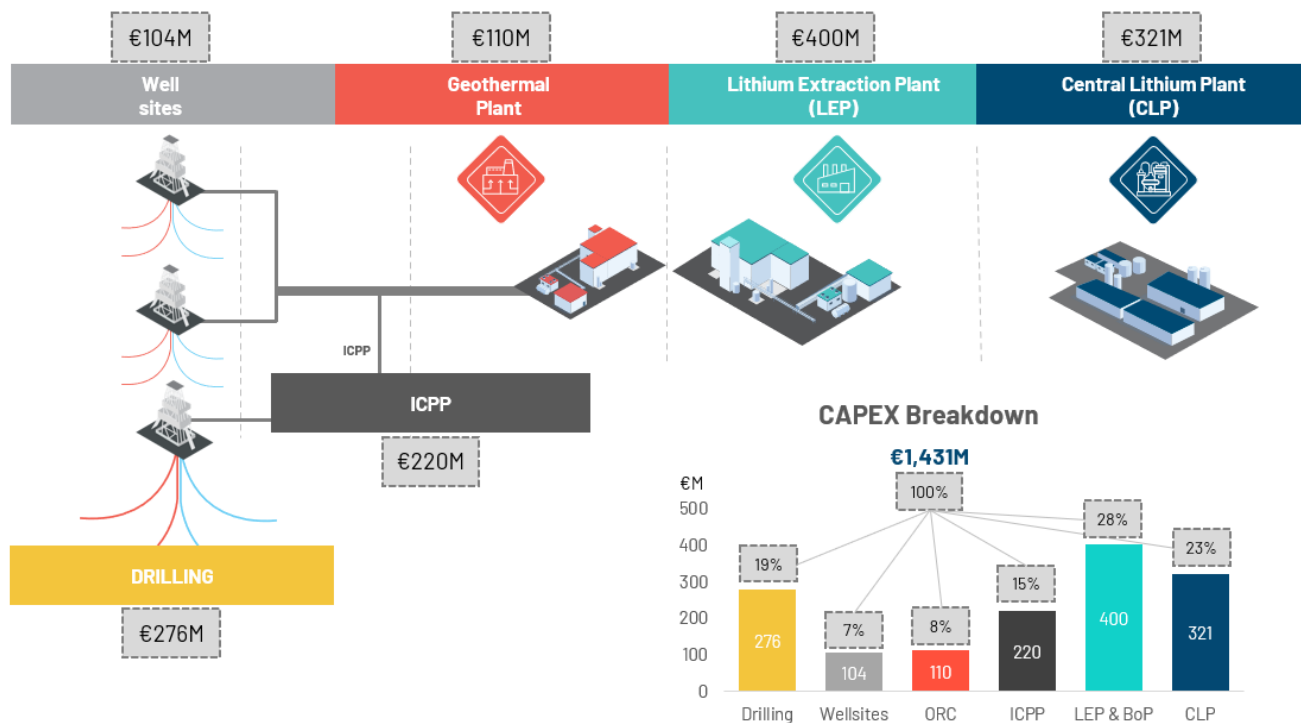


Figure 1.46: Key capital expenditure - Phase One (€M and %) estimate

During the validation period Vulcan continued to progress the schedule and to de-risk the project overall, leading at the EOV to a small reduction in contingency requirement to 11%, and a non-material (2%) increase in estimate CAPEX requirement, whilst addressing scope allocations; gaps across contract boundaries; confirming flowsheet modifications, and onshoring VULSORB® production to Europe.

- Non-material 2% CAPEX increase compared to the BES, maintaining a Class 2 Estimate view
- Contingency at 11 %
- Maintaining BES Drilling cost FDP
- Well site cost updated based on actuals, and lessons learned from Schleidberg
- ICPP engineering maturity increase, supported by bid information
- Realisation in the LEP estimate the onshoring of VULSORB®, firm bids from Technology Partners and EPCM, as well as addressing gaps and scope transfers.
- CAPEX includes contingency, indirect costs, owner's costs, EPCM, etc.

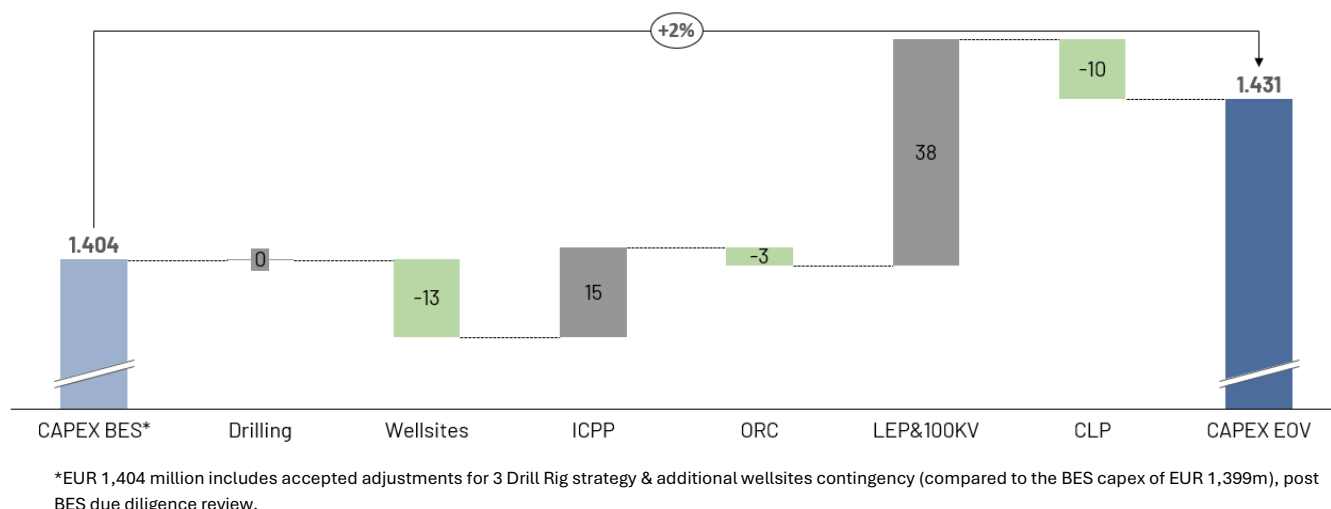


Figure 1.47: Evolution of total CAPEX estimate (€M) including contingency, between BES* and End of Validation

1.10.3.5 Project Revenues

Based on the price assumptions discussed above, projected annual revenues in Phase One are displayed below. Phase One has a projected annual revenue of €756M per year (average over the Project’s life), dominated by lithium sales representing 87% of projected total revenues. In the graph below (Figure 1.48), point 1 shows start of production in late-2027 with therefore lower revenues, point 2 revenue increase is explained by the end of a lithium offtake agreement with a fixed pricing component, and point 3 revenue drop is led by the end of the EEG Feed-in Tariff. From the 2030s onwards, LHM prices are mostly flat but lithium dilution in the brine and therefore a reduced LHM output over time impacts revenues.

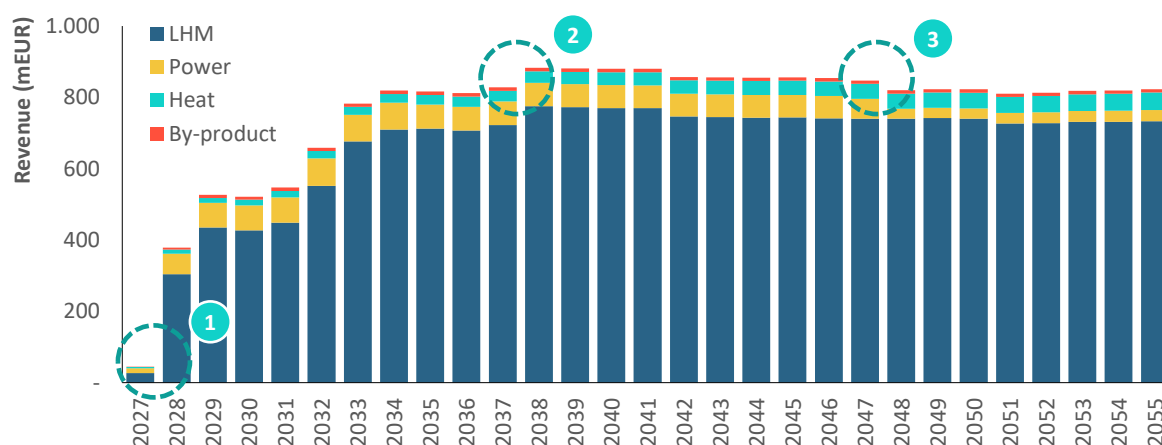


Figure 1.48: Forecast Revenues (€M/a), excluding inflation

Energy revenues dominated by baseload, renewable power sales during the EEG Feed-in Tariff period which ensures stable revenue generation for 20 years. Renewable heat supply to local communities increases over time as local demand increases. Over the life of the Project, power is expected to represent 62% of energy revenues and heat 38%, both combined amounting to an average estimated revenue of €87M per year.

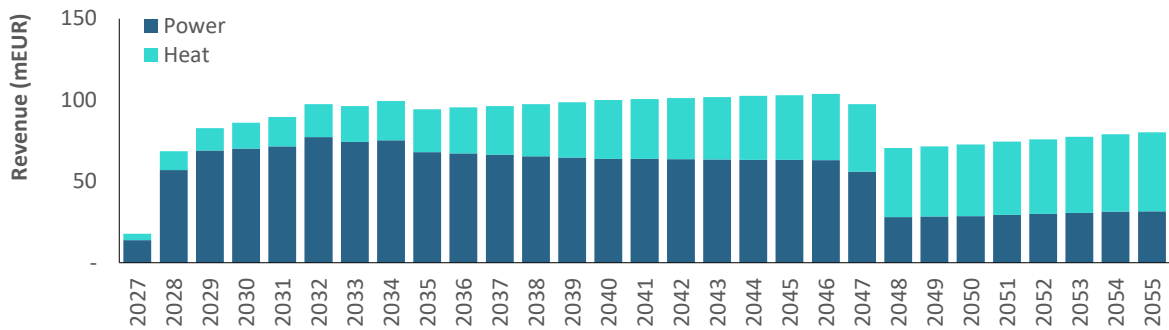


Figure 1.49: Forecast Energy Revenue (€M/a), excluding inflation

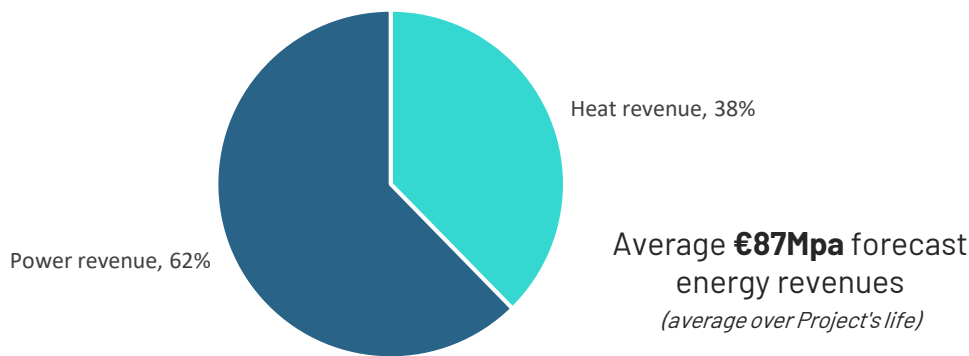


Figure 1.50: Forecast Composition of Energy Revenues

Phase One revenues are mostly dictated by LHM realised prices as 87% of all expected revenues are linked to those prices. Power is expected to account for 7% and heat 4%.

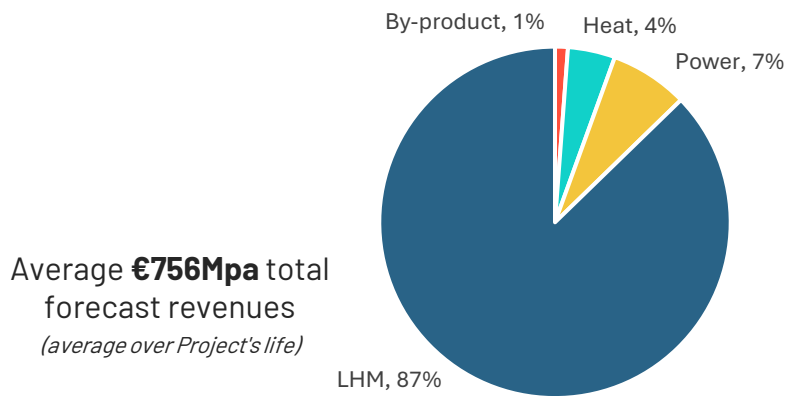


Figure 1.51: Forecast Composition of Phase One Revenues

1.10.4 Project Economics and Sensitivities

1.10.4.1 Projected Project Economics

The estimated Project economics at the EOV are shown in Table 1.7. The EOV modelling assumptions adopt the latest (Q3 2024) LHM pricing forecast, based on the average of the three base case forecasts from Wood Mackenzie, Fastmarkets and BMI, and includes non-material updates to capital and operating expenditure.

Table 1.7: Phase One estimated Project economics. *These are targets and may not be achieved. Please refer to the Forward-Looking Statement disclaimer.

Estimated Project economics at the End of Validation ^{1,2}	
Average revenue over the life of Project	€756m p.a.
Average EBITDA over the life of Project	€582m p.a.
Average EBITDA % over the life of Project	77%
Capital expenditure	€1,431m
Operating expenditure (C1) ³	€4,030/t LHM
NPV ₈ pre-tax	€3,467m
NPV ₈ post-tax	€2,173m
Internal rate of return pre-tax	21.7% unlevered 26.2% levered
Internal rate of return post-tax	17.8% unlevered 20.7% levered
Average 10-year LHM realised price €/t ⁴	€22,355/t LHM

Note: (1) The ability of the Company to realise the target project economics is subject to a number of risks and uncertainty and to the Company securing sufficient financing to fund the required project costs. (2) Vulcan confirms that all the material assumptions underpinning the forecast financial information for the EOV economics above are set out in this Competent Person Report. (3) C1 costs include power, maintenance, labour, materials, reagents, sorbent, utilities, logistics, and other fixed cost, excluding inflation. (4) Average realised lithium price from offtakes and forecast combined.

1.10.4.2 Sensitivity Analysis

A sensitivity analysis (Figure 1.52) of the Project has been carried out considering the LHM price, power price, FX, OPEX and CAPEX costs, flow rate and lithium concentration, at 10% increments (between +/-30%). Using these sensitivities, the analysis indicates that the Project is most sensitive to movements in the market price of LHM price:

- EUR/USD: all LHM offtakes are linked to a PRA with a USD index or a fixed price in USD – Vulcan Group is currently working on amending some of its offtake pricing mechanisms
- LHM price: fluctuations directly impact revenues. The average LHM price forecast of BMI, Fastmarkets and Wood Mackenzie has been adopted as the base case LHM price in the financial model

- CAPEX: Limited impact on NPV
- OPEX: as a low-cost operation, OPEX has a limited impact on financials
- Power price: limited impact as the price fluctuations impact both cost and revenues in a similar manner

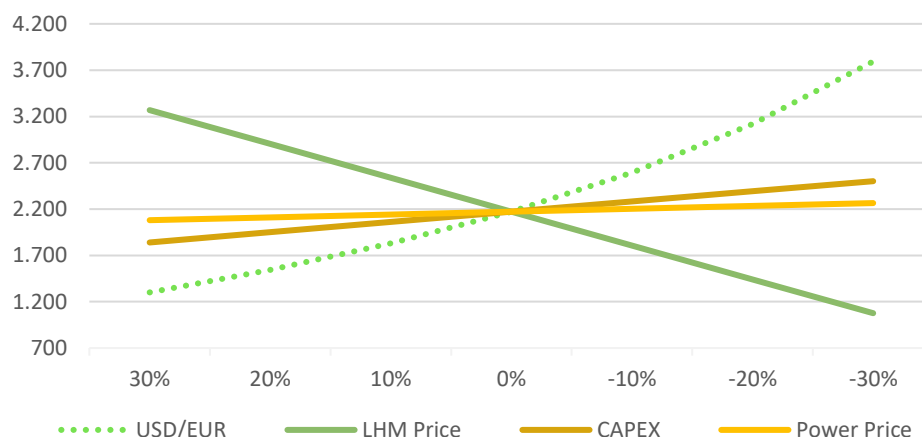


Figure 1.52: Post-Tax NPV Sensitivity – Phase One

1.11 FINANCING CONSIDERATIONS

Vulcan is currently in an advanced Phase of its Debt and Equity Financing process with the Company having received significant interest from strategic and financial investors, commercial banks, the European Investment Bank (“EIB”) and major government-backed export credit agencies.

For the debt financing, Vulcan have been working with a Structuring Group comprising the EIB; Export Credit Agencies (“ECAs”) Bpifrance Assurance Export, Export Development Canada, Export Finance Australia and SACE; and structuring banks ABN AMRO, ING, Natixis and UniCredit. A debt package including the results of the negotiation phase with the Structuring Group was issued to the Structuring Group and a wider pool of commercial banks as announced by Vulcan on the 8th of October 2024. This package included draft term sheets and detailed due diligence reports prepared by the Lenders’ Independent Technical and Environmental and Social Advisor, Market Advisor, Legal Advisor, Insurance Advisor and Tax Advisor. Vulcan is targeting to receive credit approvals and sign debt commitment letters by the end of the year and is targeting signing of the finance documentation in Q1 2025.

In parallel with the debt process, Vulcan has also launched the second phase of its equity financing process, having received significant interest from strategic and financial investors after a first due diligence phase, including from engineering and energy companies with whom Vulcan is expecting to build long term strategic partnerships with as part of this process.

2 TERMS OF REFERENCE

The definitions and usage of the terms Mineral Resources and Ore Reserves are consistent with the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition (“**JORC Code**”), which provides a mandatory system for the classification of minerals exploration results, mineral resources according to the levels of confidence in geological knowledge and technical and economic considerations in public reports.

This report includes the JORC Table 1 as Section 5.

2.1 COMPETENT PERSONS

GLJ Ltd. was commissioned by Vulcan Group to support the preparation of this IIER and provide Competent Person (“**CP**”) consent per JORC of the Mineral Resources and Ore Reserves. The purpose of the report is to advance the financing process and pursue an equity raising for Phase One.

GLJ is an independent company headquartered in Calgary, Canada and is not an associate or affiliate of the Company or any associated company of Vulcan Group. Gabriella Carrelli, M.Sc., P.Geo., previously the Vice President of Geosciences for GLJ acted as the CP for Mineral Resources. Ms. Carrelli is currently the Director for GGC Geo Consulting of Bragg Creek, Alberta, Canada. Ms. Carrelli is a Professional Geoscientist of the Association of Professional Engineers and Geoscientists of Alberta (APEGA), with certification in the Province of Alberta, Canada. She has over 20 years of experience in geological studies and evaluations, resource estimation and geologic modelling internationally and in Canada.

Kim Mohler, P.Eng., Vice President Project Development for GLJ acted as the CP for Ore Reserves. Ms. Mohler is a Professional Engineer with certification in the Province of Alberta, Canada. She has 40 years of energy industry experience working on Projects in Canada, the United States, South America, Europe, Asia, and Africa.

In preparing this report, the CPs have relied upon input from Vulcan Group and in particular its specialists on geothermal, lithium extraction and conversion process plant design, owner’s costs, logistics, market intelligence, contracts, implementation strategy, regional geology, process engineering, geological mapping, exploration, and power generation. Specific report Sections for which the CPs were responsible for sign-off related to Mineral Resource and Ore Reserves in accordance with JORC are listed in Table 2.1 below.

Table 2.1: Matrix for Competent Person Responsibility for the Bridging Study

Bridging Study Section Number	Related IER Section Number	Section Title	Lead Author	Competent Person Responsibility
7	1.3	Geological Setting and Mineralisation	Vulcan Group	Gabriella Carrelli
8	1.3	Deposit Types	Vulcan Group	Gabriella Carrelli
9	1.3	Exploration	Vulcan Group	Gabriella Carrelli
14	1.4.1	Mineral Resource Estimate	Vulcan Group	Gabriella Carrelli
15	1.4.3	Ore Reserve Estimation	Vulcan Group	Kim Mohler
16	1.4.2	Mining Methods	Vulcan Group	Kim Mohler
25	3	Interpretation and Conclusion	Vulcan Group	Gabriella Carrelli, Kim Mohler

This report is considered current as of the date of this report.

2.2 SOURCES OF INFORMATION AND DATA

This Phase One Independent Expert Report is based upon data and interpretations presented in the following previously issued reports:

- Benchmark Mineral Intelligence, Market report commissioned by Vulcan Group, dated 7 October 2024
- Validation Phase Update presentation, October 2024 prepared by Vulcan Energy Resources Ltd.
- Bridging Engineering Study for Vulcan's Project, November 2023, the results of which were announced to the ASX in the announcement "Positive Zero Carbon Lithium™ Project Bridging Study Results" dated 16 November 2023
- Definitive Feasibility Study (DFS) for Phase One of Vulcan's Project, the results of which were announced to the ASX in the announcement "Project Phase One DFS Results" dated 13 February 2023

It is also based upon information and data collected, compiled, and validated by the Company and its subsidiaries, including the following:

- Mineral rights and land ownership information. These can be verified via the online service (Geoportal) of the Nature Conservation Administration Rhineland-Palatinate (<https://mapclient.lgb-rlp.de/>)
- Publicly available maps, logs, laboratory analyses, third-party reports and field sample data
- Third-party estimates and quotes
- Test work results from bench scale tests performed on collected brine samples
- Published literature incl. scientific reports, publicly available laws and legal texts

2.3 DETAILS OF INSPECTIONS

The Ore Reserves CP Kim Mohler visited the Vulcan Group facilities, offices, and Phase One licence areas in July 2024 and November 2022, in compliance with JORC requirements. The Mineral Resource CP Gabriella Carrelli visited the Vulcan Group facilities, offices, and Phase One licence areas in July 2024 per the JORC requirements. Additionally, the DFS Mineral Resources CP Mark King visited the Vulcan Group facilities, offices and Phase One and Phase Two licence areas during a site visit from 8-10 November 2022 in compliance with JORC requirements.

2.4 UNITS

With respect to units of measure and currency, unless otherwise stated, this Report uses:

- Abbreviated shorthand consistent with the international system of units (International Bureau of Weights and Measures, 2006).
- ‘Bulk’ weight is presented in metric tonnes (“tonnes”; 1,000 kg or 2,204.6 lbs.).
- The data refer to the ETRS89, UTM Zone 32N (EPSG 25832) position reference system, unless otherwise specified.
- Currency in Euros € unless otherwise specified (e.g., U.S. dollars, USD\$).

Abbreviations are in Sections 6 and 7 of this report.

3 CONCLUSIONS

This IER provides an overview of the Bridging Study for Phase One of the Project and EOV. The Project is based on the production of heated brines from the URG which are enriched with lithium and includes co-production of geothermal energy and production of LHM as the marketable battery grade product. This represents a fully integrated approach to geothermal energy and lithium production, where Vulcan Group has acquired and built a multi-disciplinary, multi-asset team to develop, build and operate the Project.

The Phase One Lionheart area contains three licence areas of Insheim, Landau Sued, and Rift Nord. Lionheart includes two existing geothermal operations containing existing wells and plants, one of which (Insheim) Vulcan Group owns and operates as 100% interest holder, and the other where Vulcan Group has entered into an agreement to acquire the operating entity of, geox (Landau).

Vulcan Group acquired the Insheim geothermal plant and wells in 2021 which has allowed for detailed evaluation of the brine resource with the existing wells which produce from the target reservoir. Since the DFS, Vulcan Group has conducted further exploration work with 3D seismic acquisition and processing at Insheim, analysed daily brine samples from the operating wells, gathered data from 2 pilots testing the A-DLE process, tested the production of LHM from the produced LiCl from the pilots, and prepared detailed engineering design for an optimised development plan. They have also rigorously followed regulatory and environmental requirements, engaged in community and other stakeholder communication, and found solutions to current challenges in Germany for heating supply by adding district heating to their Project plans.

The Bridging Study has been compiled by a multi-faceted team including internal Vulcan Group resources and subsidiary companies, GLJ as reviewers and Mineral Resource and Ore Reserves CPs, Hatch for engineering design, and GEF for infrastructure planning. This report has been prepared in compliance with the JORC Code. Independent consultants GLJ signed off on the Mineral Resources and Ore Reserves estimates presented in this report under the JORC 2012 Code.

3.1 EXPLORATION WORK

Since 2019, through multiple sampling programmes, from offsite and onsite wells, as well as the acquisition of historical data, Vulcan Group has compiled an extensive database of URG brine geochemistry, with samples taken and analysed from multiple well locations across the URG, and, at certain locations, repeatedly taken and analysed over time from the same location. These samples have been analysed in-house using Vulcan Group's own laboratory equipment, and verified using external, independent laboratories. The result is a database which shows relatively homogenous lithium concentrations within the URG brine at the target depth, with good reproducibility and with little if any variation over time. A slight decrease in grade to the north of the URG (outside of Phase One) was noted, outside of which a consistent average of 181 mg/l Li was observed.

Vulcan Group has acquired multiple two-dimensional ("2D") and three-dimensional ("3D") seismic datasets since 2019 which, alongside public datasets, has been incorporated into an advanced 3D geological model including the spatial location and orientation of the Permo-Triassic strata, basement surface, and the orientation and offset of the fault/fracture zones. Outcrop, core and well data has also been

integrated where available, into a fully integrated reservoir model in the core Phase One district. Production simulations in the Phase One district have then guided the development of Measured and Indicated Resources. Vulcan Group further improved the geomodel with newly acquired and processed 3D seismic at Insheim, which allowed for optimisation of the geomodel and development plan.

It is the opinion of the CP that the exploration data, and other data compiled and interpreted in this technical report, have been sufficiently validated to the best of the author's ability. The author asserts that the data were utilised by the appropriate personnel in a fashion that extracts a reasonable 3D geological model of the Permo-Triassic and uppermost basement fault zone aquifers underlying the URG, and specifically in the Lionheart area.

The CP has found no significant issues or inconsistencies that would cause one to question the validity of Vulcan Group's exploration programme, and subsequent geological and analytical results.

3.2 MINERAL PROCESSING

In April 2021, Vulcan Group initiated a pilot plant testing Phase at the Landau and Insheim geothermal power plants. This has enabled Vulcan Group to utilise representative URGBF Permo-Triassic/basement brine in experiments designed to test commercially available, adsorption-type lithium extraction. As a result, Vulcan Group has developed a lithium extraction and chemical process, based on commercially available technology and equipment, either from the lithium industry or from commercially available analogues in other industries such as chlor-alkali. At the time of writing, the pilot plants (designated PP1 and P1A), had cumulatively generated thousands of hours of successful operation over 40 months since April 2021. The mineral processing and metallurgical testing conducted by Vulcan Group has enabled the optimisation of sorbent design and process engineering basis that is being used to design the LEP and CLP and integrated systems, as defined in this Independent Expert Report.

3.3 MINERAL RESOURCE ESTIMATIONS

This Independent Expert Report provides Vulcan Group's most current Mineral Resource Estimates for all licences in the URGBF. These Mineral Resource Estimates have been publicly disclosed in the form of a JORC press release and associated Table 1, published on 16 November 2023. They are fully documented herein, in a manner that allows for more detail than can be accommodated in the JORC release. The Li-brine Resource Estimations and exploration targets presented in this report were completed in accordance with the JORC Code. Generally, estimations are in line with and build on previous work, with increased confidence in the Lionheart core area where Vulcan Group has performed more detailed assessments and gathered more data.

Geologically, the resource area includes the fault damage zones and host rock matrix of the Permo-Triassic sediments which include the Rotliegend, Buntsandstein, and Muschelkalk groups as well as 100 m of Basement. A detailed list of the Mineral Resource Estimate is provided in Section 1.4.1 of this report. Below is a summary of all Mineral Resource classifications.

In the opinion of the CP, the URGBF licences for lithium and renewable energy in Phase One have reasonable prospects for future economic extraction based on aquifer geometry, delineation of fault zones using newly

acquired and re-interpreted seismic data, brine volume, brine composition, hydrogeological characterisation, porosity, fluid flow, and advancement of the Company’s Direct Lithium Sorption technology. Data derived from the test work reported by Vulcan Group as well as independent sampling is adequate to support the disclosure of Mineral Resource Estimates.

Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. Inferred Mineral Resources have a lower level of confidence associated with their estimation than Indicated Mineral Resources, but it is reasonably expected that with further exploration most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources. Indicated Mineral Resources are sufficiently well defined to allow application of modifying factors to support mineral extraction planning and economic evaluations of the deposit. Measured Mineral Resources are sufficiently well defined to allow application of modifying factors to support detailed mineral extraction planning and final evaluation of the economic evaluations of the deposit.

Table 3.1: Summary of Mineral Resource volumes for the URGBF. Detailed breakdown available in Section 1.4.1 and JORC Table 1

Mineral Resource Volumes Summary	
Classification	LCE (kt)
Inferred	16,484
Indicated	9,137
Measured	2,112

3.4 ORE RESERVE ESTIMATION

The Ore Reserves Estimation is based on the FDP for the Phase One Lionheart area per this report. The FDP is the overall well plan which defines the production and injection forecasts based on well placement, which are based on the dynamic flow model that was prepared by Vulcan Group. The drilling schedule is based on the forecasts and filling of the LEP capacity with production starting in 2027.

The Ore Reserves are reported on a Project basis and comprise as such quantities that are accountable to several licences. The Phase One Lionheart comprises Ore Reserves from the Insheim, Landau Sued, and Rift Nord licences.

Table 3.2: Summary of Vulcan Group's Ore Reserves for Phase One in LCE as attributed at Reference Point of Wellhead/LEP inlet

Project Area	Reserve Classification	Ore Reserve Volume (LCE in kt)	Lithium Grade (ppm)
Lionheart	Proved	318	181
Lionheart	Probable	252	181

It is the opinion of the CP that methods utilised to estimate the Ore Reserves followed accepted industry practices and utilised a thorough approach. The lithium grade has been well established with proven historical data that confirms the use of 181 mg/l as the lithium grade for the Ore Reserves Estimation. The consideration of uncertainty to estimate Proved and Probable Reserves was assigned based on cumulative expected production at 15 years and at 30 years respectively. This is a reasonable representation of what is economically recoverable with applied modifying factors to these time periods.

The Ore Reserves estimated volumes for Lionheart is revised since the DFS announcement. There has been an increase in Proved and Probable Ore Reserves for the Lionheart area due to an improved geomodel with new 3D seismic, improved dynamic flow model, optimisation of well placement, and optimisation of FDP to one centralised Phase One area. This improved the modifying factors and certainty of economic viability. The CP supports the increase in Ore Reserves for Phase One Lionheart. There have been no changes since the DFS to the Ore Reserves reported for other Vulcan Group licence areas in the URGBF.

3.4.1 Summary of risks and uncertainties

The Bridging Study represents a large undertaking to optimise the Project's design basis for development of the lithium and geothermal resources held by Vulcan Group in the URGBF. The Bridging Study focus is on the Phase One Lionheart area, which includes a centralised LEP site, and the CLP which will provide conversion to LHM for Phase One and other future Phases. Herein is a summary of key risks and uncertainties that relate to the Phase One of the Project and the Estimation of Mineral Resources and Ore Reserves.

3.4.1.1 Geologic

- Reservoir connectivity may be influenced by currently unidentified features, such as baffles and barriers, high permeability zones and the impact and geometries of fault/fracture zones which can impact brine flow rate estimates. This is mitigated by flexibility in the field development plan.
- There is a risk that the geologic interpretation for the Lionheart area might be different when data from new wells is gathered. This is mitigated by flexibility in the field development plan.

3.4.1.2 Technical/Operational

- The re-injection flow rates into the host-rock matrix is expected to result in a "sweep" effect, but has uncertainty related to the positive impact expected. This could be controlled with drilling side-track

wells to increase production or longer horizontal well sections to increase re-injection resulting in added capital.

- Drilling issues with downhole collision as multiple wells and side-tracks are drilled from the same pad. This is mitigated with measurement while drilling and specialised tools and control systems to manage the drilling.
- Scaling and corrosion are risks that can affect the operating equipment including wells, piping, and vessels. There is historical knowledge from the operating facilities and mitigation is planned utilizing inhibitor chemicals and maintenance operating plans that manage the risk.
- Transport activities for the Project could lead to accidents, which is mitigated with proper training and staffing for driver selection and having an emergency response plan prepared.

3.4.1.3 Economic

- Failure of product to meet on-spec requirements can lead to loss in revenues. This is mitigated with communication with offtake holders to manage delivery schedules, and to identify buyers for off-spec product.
- Change in market conditions that impacts the price negatively or impacts market demand.
- Change in facility and infrastructure equipment supply that can impact costs and schedule.

3.4.1.4 Environmental

- There is potential risk associated with induced seismicity caused by injection of brine, which is mitigated with injection control, monitoring systems and passive seismic monitoring.
- Risk of hazardous gas or fluid release to air or surface. This is being mitigated with Hazard and Operability (“HAZOP”) and Layers of Protection Analysis (“LOPA”) studies and engineering design considerations, plus maintaining emergency response plans, having spill containment, and ensuring safe operating procedures are in place.

3.4.1.5 Political/Regulatory

- Changes in regulations and permitting may impact Project schedule, design specifications, and cost. This can be mitigated through communication and advocacy with levels of government and regulatory authorities to be aware of upcoming changes.

The Company has identified Project risks and conducted risk assessments for all aspects of the Project. Through this process they have identified mitigations and management processes and identified which activities may still carry residual risks even after mitigation and management. Vulcan Group has plans to monitor and manage risks and uncertainties as the Project progresses through design, construction, commissioning, operations, and decommissioning.

4 CAUTIONARY STATEMENT AND COMPETENT PERSON STATEMENT AND CONSENT

4.1 CAUTIONARY STATEMENT

The IER of the Phase One Bridging Study and EOV is based on the material assumptions outlined within and based on the Bridging Study report and subsequent findings. Although GLJ considers all of the material assumptions to be based on reasonable grounds as provided by Vulcan Group, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Bridging Study will be achieved.

To achieve the range of outcomes indicated in the Bridging Study, additional funding will be required. Investors should note that there is no certainty that Vulcan Group will be able to raise the amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares. It is also possible that Vulcan Group could pursue other financing strategies such as a partial sale or joint venture ("**JV**") of the Project. If it does, this could materially reduce the Company's proportionate ownership of the Project.

Vulcan Group has carried out a Bridging Study for Phase One, the results of which were announced to the ASX in November 2023. This document may include certain information relating to the BES. The BES is based on material assumptions outlined in the BES announcement. This document uses the results of the BES as a basis to update its Mineral Resources and Ore Reserves, estimated in accordance with the JORC Code. This document may also include information relating to future phases of production (beyond Phase One), which is yet to be defined.

4.1.1 Forward-Looking Statements

Some of the statements appearing in this IER for Phase One may be in the nature of forward-looking statements. Such forward-looking statements include details of the proposed production plant, production targets, forecast financial information (including revenue and EBITDA), estimated Mineral Resources and Ore Reserves, expected future demand for lithium products, planned strategies, corporate objectives, lithium recovery rates, projected concentrations, capital and operating costs, permits and approvals, levies, the Project development timeline and exchange rates, among others.

GLJ and Vulcan Group do not undertake any obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this IER for the Phase One Bridging Study. To the maximum extent permitted by law, none of Vulcan Group; nor its directors, employees, advisors or agents, nor GLJ, nor any other person, accepts any liability for any loss arising from the use of the information contained in this IER for Phase One.

You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this IER for the Phase One Bridging Study reflect views held only as at the date of the Bridging Study report. This Independent Expert Report is not an offer, invitation or recommendation to subscribe for, or purchase securities by Vulcan Group. Nor does the Bridging Study report constitute investment or

financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. Investors should obtain their own advice before making any investment decision.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance, and achievements to differ materially from any future results, performance, or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and Project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which Vulcan Group operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on Vulcan Group and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events, or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements, or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company.

Statements regarding plans with respect to the Company's mineral properties may contain forward-looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements. This IER has been prepared based on the Bridging Study which is in compliance with the JORC Code 2012 Edition and the current ASX listing rules.

GLJ as author of the IER believes that the Bridging Study and Vulcan as author of that study has a reasonable basis for making the forward-looking statements in the Bridging Study report, including with respect to any mining of mineralised material, modifying factors and production targets and financial forecasts. The following information is specifically provided in support of this belief:

- The Bridging Study was completed by Vulcan Group's in-house teams with support and oversight from independent specialist firms.
- As is normal for this type of study, the Bridging Study has been prepared to an overall level of accuracy of Class 2 approximately $\pm 15\%$ for capital and operating costs. Production targets and financial forecasts disclosed in this IER are based exclusively on Indicated Resource categories as defined under the JORC Code.
- All material assumptions on which the forecast financial information is based have been included in the Bridging Study report.

4.1.2 Investment Risks

An investment in the Company is subject to both known and unknown risks, some of which are beyond the control of Vulcan Group, see also the risks contained in the Bridging Study (announcement on “Positive Zero Carbon Lithium Project Bridging Study Results”) and the Bridging Study Presentation (announcement on “Bridging Engineering Study Results - Presentation”) released to the ASX on 16 November 2023 (“**Previous Disclosures**”), the risks contained in the “Equity Raise Presentation” and “Information Memorandum” released to the ASX on 11 December 2024, and the risks contained in the Prospectus dated on or around 17 December 2024. These factors may include, but are not limited to, changes in commodity and renewable energy prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs lithium, the speculative nature of exploration and Project development (including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves), political and social risks, changes.

Vulcan Group does not guarantee any particular rate of return or its performance, nor does it guarantee any particular tax treatment. Prospective investors should have regard to the risks in the Previous Disclosures, particularly the May 2023 Prospectus, which have not materially changed, when making their investment decision, and should make their own enquires and investigations regarding all information in this document, including, but not limited to, the assumptions, uncertainties and contingencies that may affect Vulcan Group's future operations, and the impact that different future outcomes may have on Vulcan Group. There is no guarantee that any investment in the Company will make a return on the capital invested, that dividends will be paid on any fully paid ordinary shares in the Company, or that there will be an increase in the value of the Company in the future. Accordingly, an investment in Vulcan Group and the Company's shares should be considered highly speculative, and potential investors should consult their professional advisers before deciding whether to invest in Vulcan Group.

4.1.3 Financial Data

All monetary values expressed as "\$" or "A\$" in this document are in Australian dollars, unless stated otherwise. All monetary values expressed as EUR or € in this document are in Euros, unless stated otherwise. All monetary values expressed as "US\$" in this document are in US dollars, unless stated otherwise.

In addition, readers should be aware that financial data in this document includes "non-IFRS financial information" under ASIC Regulatory Guide 230 'Disclosing non-IFRS financial information' published by ASIC and also 'non-GAAP financial measures' within the meaning of Regulation G under the U.S. Securities Exchange Act of 1934.

The non-IFRS financial measures do not have standardised meanings prescribed by Australian Accounting Standards and, therefore, may not be comparable to similarly titled measures presented by other entities, nor should they be construed as an alternative to other financial measures determined in accordance with Australian Accounting Standards. Although Vulcan Group believes the non-IFRS financial information (and non-IFRS financial measures) provide useful information to readers of this document, readers are cautioned not to place any undue reliance on any non-IFRS financial information (or non-IFRS financial measures).

Similarly, non-GAAP financial measures do not have a standardised meaning prescribed by Australian Accounting Standards or International Financial Reporting Standards and therefore may not be comparable to similarly titled measures presented by other entities, nor should they be construed as an alternative to other financial measures determined in accordance with Australian Accounting Standards or International Financial Reporting Standards. Although Vulcan Group believes that these non-GAAP financial measures provide useful information to readers of this document, readers are cautioned not to place undue reliance on any such measures.

4.1.4 Industry Data

Certain market and industry data used in connection with or referenced in this document may have been obtained from public filings, research, surveys or studies made or conducted by third parties, including as published in industry-specific or general publications. Neither Vulcan Group nor its advisers, nor their respective representatives, have independently verified any such market or industry data. To the maximum extent permitted by law, each of these persons expressly disclaims any responsibility or liability in connection with such data.

4.1.5 Effect of Rounding

A number of figures, amounts, percentages, estimates, calculations of value and fractions in this document are subject to the effect of rounding. Accordingly, the actual calculation of these figures may differ from the figures set out in this document.

4.2 COMPETENT PERSON STATEMENT AND CONSENT

The information in this document that relates to Mineral Resources is based on and fairly represents, information that was reviewed, and audited by G. Gabriella Carrelli, M.Sc., P.Geo., who was a full-time employee of GLJ Ltd. at the time of the Bridging Study and is now full-time with GGC Geo Consulting, contracted on behalf of GLJ Ltd. and deemed to be a 'Competent Person'. Ms. Carrelli is a Professional Geoscientist of the Association of Professional Engineers and Geoscientists of Alberta (APEGA), with certification in the Province of Alberta, Canada, a 'Recognised Professional Organisation' included in a list that is posted on the ASX website from time to time. Ms. Carrelli has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the JORC Code. Ms. Carrelli consents to the disclosure of the technical information as it relates to the Mineral Resources information in this document in the form and context in which it appears.

The information in this document that relates to Production Target and Ore Reserves is based on and fairly represents, information that was reviewed, overseen, and compiled by Ms. Kim Mohler, P.Eng., who is a full-time employee of GLJ Ltd. and deemed to be a 'Competent Person'. Ms. Mohler is a member as a Professional Engineer of the Association of Professional Engineers and Geoscientists of Alberta (APEGA), a 'Recognised Professional Organisation' included in a list that is posted on the ASX website from time to time. Ms. Mohler has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that she is undertaking to qualify as a Competent Person as defined in the JORC Code. Ms. Mohler consents to the disclosure of the technical information as it relates to the Production Target and Ore Reserve information in this document in the form and context in which it appears.



CONSENT of COMPETENT PERSON

I, G. Gabriella Carelli, M. Sc., P. Geo., consent to the inclusion and public release by Vulcan Energy Resources Limited ("Vulcan") of (i) the report entitled "Vulcan Independent Expert Report" dated 13 December 2024 (the "IER Report"), (ii) any information based on or derived from the IER Report, and (iii) a copy of this consent statement and/or its contents, in the following reports to be published by Vulcan:

- (i) the prospectus to be released by Vulcan on or around 17 December 2024 (including any supplementary or replacement of such prospectus) or any extract or summary from such prospectus (including the "Information Memorandum" released by Vulcan on 11 December 2024) released by Vulcan prior to such time ("Prospectus"); and
- (ii) any announcements, investor presentations and/or other communications connected to the Prospectus or the IER Report,

(together with the IER Report, the "Vulcan Reports").

I verify that the Vulcan Reports are based on, and fairly and accurately reflect in the form and context in which it appears, the information in my supporting documentation relating to the Mineral Resources and JORC Table 1. I am responsible for the preparation of Sections 1.2, 1.3, and 1.4 and JORC Table 1 of the IER Report.

This consent of Competent Person is provided pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition and the Commission Delegated Regulation (EU) 2019/980 of 14 March 2019.

I confirm that I am the Competent Person for the Vulcan Reports and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of Alberta (APEGA), a 'Recognised Professional Organisation' included in a list that is posted on the ASX website from time to time.
- I have reviewed the Vulcan Reports to which this Consent Statement applies.
- I am a full-time employee of GGC Geo Consulting, PO Box 844, Bragg Creek, Alberta, Canada T0L 0K0 in the role of Director, having previously been a full-time employee of GLJ Ltd. (GLJ) during the Bridging Study.
- I have disclosed to Vulcan the full nature of the relationship between myself and Vulcan, including any issue that could be perceived by investors as a conflict of interest.
- I have been engaged by GLJ, as a consultant, for Vulcan to prepare this documentation.

I consent to the release of the Vulcan Reports of the matters based on this information in the form and context in which it appears.

Dated 13 December 2024

G. Gabriella Carrelli

Signature of Competent Person



G. Gabriella Carrelli

Print name of Competent Person



CONSENT of COMPETENT PERSON

I, Kim Mohler, P.Eng., consent to the inclusion and public release by Vulcan Energy Resources Limited ("Vulcan") of (i) the report entitled "Vulcan Independent Expert Report" dated 13 December 2024 (the "IER Report"), (ii) any information based on or derived from the IER Report, and (iii) a copy of this consent statement and/or its contents, in the following reports to be published by Vulcan:

- (iii) the prospectus to be released by Vulcan on or around 17 December 2024 (including any supplementary or replacement of such prospectus) or any extract or summary from such prospectus (including the "Information Memorandum" released by Vulcan on 11 December 2024) released by Vulcan prior to such time ("Prospectus"); and
- (iv) any announcements, investor presentations and/or other communications connected to the Prospectus or the IER Report,

(together with the IER Report, the "Vulcan Reports").

I verify that the Vulcan Reports are based on, and fairly and accurately reflect in the form and context in which it appears, the information in my supporting documentation relating to the Production Target and Ore Reserves and JORC Table 1. I am responsible for the preparation of Sections 1.1, 1.2, 1.4 and 3 and JORC Table 1 of the IER Report.

This consent of Competent Person is provided pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition and the Commission Delegated Regulation (EU) 2019/980 of 14 March 2019.

I confirm that I am the Competent Person for the Vulcan Reports and:

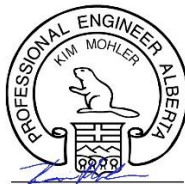
- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member as a Professional Engineer with the Association of Professional Engineers and Geoscientists of Alberta (APEGA), a 'Recognised Professional Organisation' included in a list that is posted on the ASX website from time to time.
- I have reviewed the Vulcan Reports to which this Consent Statement applies.
- I am a full-time employee of GLJ Ltd. at 1920, 401-9th Ave SW, Calgary, Alberta, Canada, in the role of Vice-President, Project Development.
- I have disclosed to Vulcan the full nature of the relationship between myself and Vulcan, including any issue that could be perceived by investors as a conflict of interest.
- I have been engaged by Vulcan to prepare this documentation.

I consent to the release of the Vulcan Reports of the matters based on this information in the form and context in which it appears.

Dated 13 December 2024



Signature of Competent Person



Kim Mohler, P.Eng.

Print name of Competent Person

5 JORC TABLES

5.1 SAMPLING TECHNIQUES AND DATA

Table 5.1: JORC Table: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	- Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. - Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. - Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg. submarine nodules) may warrant disclosure of detailed information.	- Phase One of the Project (designated as the Lionheart area) as it pertains to Vulcan Group's Mineral Resource Estimations and associated brine sampling programs contains the following licences: Insheim, Landau Sued, and Rift Nord. The Lionheart licences are located in the Upper Rhine Graben Brine Field (URGBF). Vulcan Group has access to existing, operating deep geothermal wells with proven drilling information and lithium brine grades within the core of the Lionheart licence area, through 100% ownership of the Insheim Project and through an agreement to acquire 100% of the Landau Project. - Within the Lionheart area, geothermal wells access hot brine from the Permo-Carboniferous Rotliegend Group, Lower Triassic Buntsandstein Group, and the Middle Triassic Muschelkalk Group, (collectively, Permo-Triassic) sandstone and carbonate aquifers/reservoirs overlying the granitic basement, as well as the upper 100 m of the basement itself. Vulcan Group brine sampling programs collected Permo-Triassic brine samples from available wells through the following programs: - In 2021-23, extensive brine sampling at the Landau and Insheim geothermal wells and power plants for the lithium extraction pilot plant study was carried out. - In 2019-21, sampling and analysis from five different geothermal wells located throughout the URGBF (Landau Gt La1, Insheim GT2, Vendenheim and Soultz GPK2 wells) was undertaken to verify historically reported lithium concentrations. - Brine can be sampled at the wellhead, (the hot side of the geothermal production circuit) or after the heat exchanger (the cold side of the geothermal production circuit) prior to reinjection of the brine back down into the aquifer. Brine samples taken at the wellhead require a cooling mechanism (e.g., brine flows through a tube immersed in ice) and a mobile degasser unit to reduce CO₂. No special equipment is required on the cold side of the production circuit.

Criteria	JORC Code Explanation	Commentary
		• The Mineral Resources CP for the Definitive Feasibility Study (DFS CP) for the DFS report dated February 2023 collected independent brine samples at the Landau and Insheim resource area during the November 2022 site visit and submitted these for analysis at AGAT Laboratories, an accredited and ISO 9001:2015 registered commercial analytical services firm located in Calgary, Canada. Splits of these samples were also submitted blindly to the Vulcan Group laboratory located in Karlsruhe, Germany. Results of the 2021-2022 sampling program are consistent with previous Vulcan Group sampling programs and also with historical reporting associated with this field. • Brine sampling programs were conducted in 2019 and 2021 by Vulcan Group employees who maintained a chain of custody protocol from sample site to delivery of the samples to the Karlsruhe Institute of Technology (KIT), University of Heidelberg (Uni HD), and IBZ-Salzchemie GmbH & Co. KG in Halsbruecke, Germany, for analytical work. Industry standard collection techniques were applied to collect new samples averaging 10 litres in volume. A split of each sample collected by Vulcan Group in 2019 was shipped by commercial courier to the Pre-Feasibility Study (PFS) Mineral Resources CP from APEX Geoscience Ltd. and analysed at the accredited AGAT Laboratories facility in Edmonton, Alberta, Canada. In addition, four brine samples collected by GeoT were shipped by commercial courier to the PFS Mineral Resources CP in Edmonton, Alberta, Canada for analysis at the accredited and ISO 9001:2015 registered facilities of AGAT Laboratories and also at the accredited and ISO 9001:2015 registered Bureau Veritas Laboratory (formerly Maxxam Analytical). • The current Mineral Resources CP reviewed the techniques of the regional brine sampling and the Insheim resource area brine sampling programs carried out by Vulcan Group, along with their related analytical procedures, and concluded that these were conducted using reasonable and industry-standard techniques in the field of brine sample collection and assaying and that there are no significant issues or inconsistencies that would cause the validity of the sampling or analytical techniques used by Vulcan Group to be questioned. • In combination, these data support the Mineral Resource CP's conclusion that the Permo-Triassic brine in the URGBF and specifically within the Lionheart development reservoir units is consistently enriched in lithium.

Criteria	JORC Code Explanation	Commentary
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	- A range of well data from various sources are available for this Project covering different sections of the Mesozoic and Paleozoic rock formations of the URGBF. The majority of well data are from geothermal wells (GT) in the area that typically have been drilled into fault damage zones in the reservoir units and terminated in granitic basement. Insheim and Landau within the Lionheart development area are producing geothermal wells, the Appenhofen well on the Rift licence provides key data for the Buntsandstein reservoir, and the Vendenheim well was drilled into the granitic basement. Brühl GT1 was successfully drilled into the geothermal reservoir by a third party and was subsequently sealed, and Offenbach GT1 is an unsuccessful well that did not tap productive zones. Additional well data are available from publications addressing areas of the Landau and Römerberg oil fields or geothermal Projects in Rittershoffen (e.g., well GRT-1) and Soultz-sous-Forêts (e.g., wells EPS-1, GPK-1, and GPK-2). Also contributing to the current Vulcan Group database are regional studies conducted in the URGBF in association with the trans-national GeORG Project, which combines data from individual wells, excerpts from various well databases, and outcrop data to establish overall ranges on reservoir properties, lithologies and facies. - Since these are planned to be completed as part of the Field Development Plan for Phase One, Vulcan Group has not yet conducted any new drilling programs designed specifically to support exploration, evaluation, or Resource Estimation work programs. It is therefore currently reliant on its own existing, producing/re-injection geothermal wells, as well as published or otherwise available data from existing geothermal wells to characterise brine chemistry. - Geothermal and lithium production wells are usually designed with larger diameters than holes commonly drilled for production purposes in the oil industry. This is necessary to optimise fluid flow hydraulics for both brine production and injection wells. - Current geothermal well drilling in the URGBF generally consists of a 30" diameter (30") conductor casing drilled vertically to depth followed by several additional sections. These comprise a 20" surface casing in a 26" hole, a 13 3/8" intermediate liner in a 17 1/2" hole, and a 9 5/8" production liner in a 12 1/4" hole, above a 7" liner in an 8 1/2" hole. The final diameter hole is drilled into the targeted reservoir and to the

Criteria	JORC Code Explanation	Commentary
		well's total depth. Each section reduces in diameter as the drill hole deepens and their designed intervals are dependent on factors such as lithology and stability. • Drilling muds are typically water based and have weights chosen to correspond with lithological and pore pressure conditions. • Conventional rock coring within the reservoir interval may occur, and logging of cuttings returned with the drilling mud (mud logging) typically provides lithological and stratigraphical information for the units encountered (i.e., formation tops and formation thickness, etc.). Mudlogging is highly relevant in cases of drilling geothermal production or injection wells. Drilling data with regards to depth, time, rate of penetration (ROP), weight on bit (WOB), revolutions per minute (RPM), pump pressure, mud flow rates, and gas chromatography, among others, are constantly monitored and recorded. Resulting data are typically available or summarised in associated reporting.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• While Vulcan Group has yet to conduct any new drilling or core sampling programs within the URGBF, it owns its own production/re-injection wells in its core Insheim Project and has access to operating geothermal production/re-injection wells at Landau, along with all associated technical information. This includes a large amount of drilling, geological, petrophysical and lithium brine data that apply to the Lionheart development area. • Brine samples from regional geothermal wells and the Insheim and Landau wells were generally recovered directly from the flowing brine stream within associated geothermal facility brine circuits, typically on both the "hot" and "cold" sides of such circuits. The brine sample collection method and sample collection documentation are in accordance with lithium brine industry standards and include procedures to avoid dilution of brine by drilling or process fluids prior to sample collection.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource Estimation, mining studies and metallurgical studies.	• Vulcan Group's Phase One Lionheart Project area, located in the larger URGBF, benefited greatly from access to publicly available detailed lithological logs and down hole geophysical logs (where available) data for the various oil and gas and geothermal wells that occur within or adjacent to the licenced areas. Government agencies have compiled such data for more than 30,000 oil and gas wells,

Criteria	JORC Code Explanation	Commentary
	- Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. - The total length and percentage of the relevant intersections logged.	geothermal, thermal, mineral water and mining boreholes across the entire URGBF, within and proximal to Vulcan Group's resource areas. - During 2020, Vulcan Group acquired additional detailed lithological and downhole geophysical measurements from geothermal well Brühl GT1-3 which is located approximately 5km from Vulcan Group's northern licence areas. It penetrated through the same Permo-Triassic strata being assessed by Vulcan Group. Wireline logging runs were performed in the open hole and included: FMI-GR (resistivity image, caliper), DSI-GPIT-PPS-GR (sonic, caliper), LDS-GR (density, photo electric factor), and UBI-GR (acoustic image). The downhole information provided both qualitative (e.g., litho-logs) and quantitative information such as porosity and permeability measurements. These data were used to study and assess the hydrogeological characteristics and variations between, for example, host rock matrix porosity and fault zone fracture porosity. - From 2020 to 2022, Vulcan Group reinterpreted existing 2D seismic data in the Ortenau, Taro, and Lionheart (i.e., Insheim, Landau and Rift) licence areas. This interpretation benefited particularly from detailed study of historical well logs from two wells (Appenhofen 1 and Brühl GT1). These logs were acquired by companies other than Vulcan Group, but their content facilitated Vulcan Group's interpretation and correlation of subsurface stratigraphy. That is, the historical well logs data helped with interpretation of seismic line profiles and to confirm and validate key stratigraphic marker horizons including the Buntsandstein surface and various fault zones that are critical to the current Resource Estimation process. - In the Phase One area in late 2022 to early 2023 Vulcan Group acquired, processed, and interpreted state of the art depth imaged 3D seismic data. The new 3D seismic was integrated with existing subsurface data resulting in a high confidence reservoir model of the Phase One brine reservoir, which allowed for optimised well placement. - The detailed lithologic and geophysical well logging data acquired by Vulcan Group from various sources was assessed based on quality and resolution and incorporated into the Lionheart modelling that underlies the Resource Estimation program carried out by the company.

Criteria	JORC Code Explanation	Commentary
		Based on validation discussions with Vulcan Group staff, plus review of compiled logging data and related geological and Resource Estimation digital models, the Mineral Resources CP has concluded that such data are acceptable for use in Vulcan Group's current brine Resource Estimation program.
Sub-sampling techniques and sample preparation	- If core, whether cut or sawn and whether quarter, half or all cores taken. - If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. - For all sample types, the nature, quality and appropriateness of the sample preparation technique. - Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. - Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. - Whether sample sizes are appropriate to the grain size of the material being sampled.	- As part of its lithium extraction piloting programme which has been running for over 3 years, Vulcan Group collects regular samples from the hot and cold circuit sample points at Insheim and Landau, to gain an understanding of whether the geothermal plant cycle influences lithium concentration as the brine cycles through the plant. - The sample sizes are appropriate for industry standard brine assay testing and comparable to those documented in Vulcan Group's previous brine resource reports for the URGBF holdings prepared in 2019 and 2020. - Vulcan Group's sampling protocol includes collection of the following three aliquots: - one aliquot of the unfiltered, non-acidised brine sample for anion analysis - one aliquot of unfiltered brine with supra-pure HNO₃ for total metal analysis via ICP-OES; and - a filtered and acidized sample for analysing solutes (cations/ trace metals) and dissolved metal analysis via ICP-OES. - Insertion of Sample Blanks and Sample Standards into the sample stream is included in the Vulcan Group sampling protocol. - In addition, duplicate samples are collected at each sample site and the duplicate sample geochemical analyses was conducted at numerous laboratories that included independent University and commercially accredited laboratories. All labs have experience with analysing lithium in brine.
Quality of assay data and laboratory tests	- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. - For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make	- The brine sample collection, sample handling, analytical techniques, and QA/QC protocols used by Vulcan Group conform to industry standards. - The Mineral Resources CP concludes that Vulcan Group lithium brine sampling and analysis uses industry standard protocols and are acceptable for use in the Mineral Resource Estimates.

Criteria	JORC Code Explanation	Commentary
	and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	
Verification of sampling and assaying	- The verification of significant intersections by either independent or alternative company personnel. - The use of twinned holes. - Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. - Discuss any adjustment to assay data.	- Vulcan Group has operating geothermal wells with proven drilling information and lithium grades within its Insheim licence and access to operating geothermal wells in the Landau licence, as well as access to historical and/or nearby well data. - A site visit was completed by the Mineral Resources CP for the DFS (DFS CP) who visited the Vulcan Group properties and Karlsruhe offices and laboratory for three full days, from November 8-10, 2022. At both the Landau and Insheim operations, the DFS CP collected five brine samples from the production wells. Two of samples were analysed at the Vulcan Group analytical laboratory in Karlsruhe, Germany (one sample location identified to Vulcan Group and one not identified). Two of the samples were analysed at the Karlsruhe Institute of Technology (KIT) Laboratory, (one sample location identified to Vulcan Group and one not identified). The fifth sample was analysed by AGAT Laboratories, an independent, ISO 9001:2015 registered laboratory in Calgary, Alberta, Canada (delivered by CP). All three labs routinely process high TDS brine, perform trace element analysis for lithium, and have rigorous internal QA/QC protocols. The mean lithium results from the three labs for site visit samples were similar (KIT 181 mg/L, Vulcan Group 177 mg/L and Canadian lab 171 mg/L). The results are also comparable to the lithium grade of 181 mg/L used in the current Resource Estimation for the southern Vulcan Group licences, which is based on previously collected data. - Verification samples were also collected by the PFS CP during site inspection in 2019. Samples were analysed at 2 separate commercial labs in Calgary, Alberta Canada (AGAT Laboratory and Bureau Veritas Laboratory). The analytical results showed a mean value of 180 mg/L Li. This result is similar to the average analytical result for Vulcan Group's regional well sampling and Insheim resource area well sampling programs (181 mg/L Li).

Criteria	JORC Code Explanation	Commentary
Location of data points	- Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource Estimation. - Specification of the grid system used. - Quality and adequacy of topographic control.	- The grid system used is UTM WGS84 zone 32N. - The surface Digital Elevation Model used in the three-dimensional model was acquired from JPL's Shuttle Radar Topography Mission (SRTM) dataset; the 1 arc-second gridded topography product provides a nominal 30 m ground coverage.
Data spacing and distribution	- Data spacing for reporting of Exploration Results. - Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve Estimation procedure(s) and classifications applied. - Whether sample compositing has been applied.	- The Lionheart Phase One Resource Estimation uses subsurface lithological information from existing, operating wells within the Insheim and Landau licences, and from off-property geothermal wells including at Vendenheim and Brühl. These well locations are supplemented with extensive 2D seismic data and 3D seismic data. - Vulcan Group has existing, operating geothermal wells with proven drilling information and ongoing lithium grade sampling results within the Insheim and Landau resource areas that form the core of the field. Existing production/re-injection wells are located within 10m of each other on the surface, and within 2km of each other at the target depth. The Landau and Insheim production wells, as well as Appenhofen well, in the Measured Resource area in Phase One, are approximately 5km apart on the surface. - Subsurface 3D geological models were constructed by Vulcan Group, to outline the Permo-Triassic aquifers and fault domains underlying the URGBF, in support of Resource Estimation. Below is a description of the seismic surveys that were used to construct these models: - With several data purchases from third party public and private entities completed, the Vulcan Group 2D database was expanded over the past year and now includes most existing 2D seismic data sets across most of Vulcan Group's licence areas in the URGBF. - Late 2022 early 2023 Vulcan Group acquired, processed, and interpreted state of the art 3D seismic data over the Insheim, Landau Sued, and Rift Nord licences, the licences that cover the Phase One Project area. - The GeORG Project provided an extensive interpreted 2D seismic grid across the URG which complemented interpretation.

Criteria	JORC Code Explanation	Commentary
		• The orientation of the Permo-Triassic strata is generally flat-lying and continuous in the URGBF area. High-angle faults have created a complex horst and graben structural environment. However, the Permo-Triassic strata are generally laterally continuous, despite being locally offset by rift-related faulting. It is noted that the Permo-Triassic strata have been mapped for approximately 250 km along the north-northeast strike length of the entire URGBF. • With respect to lithium brine concentration, the average brine analytical results from both the regional well sampling and detailed Vulcan Group sampling at the Upper Rhine Graben Brine Field resource area from 2019 to 2023 are comparable, with a combined average value of 181 mg/L lithium. In addition, these values are comparable to historical and proprietary lithium concentrations that were compiled throughout the URGBF. The combination of Vulcan Group -sampled and historically sampled and analysed brine shows a narrow range of lithium brine concentrations in the Permo-Triassic aquifer brine in the vicinity of and within Vulcan Group's licences, as well as consistency over time. • Given the consistency of the lithium grades within the reservoir, and the sedimentary, continuous nature of the reservoir itself, the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve Estimation procedure (s) and classifications applied.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Vulcan Group has two operating geothermal wells (Insheim and Landau) with proven drilling information and ongoing lithium grade results. These wells were highly deviated to intercept fault zones that constitute corridors of high fluid flow. Based on the overall dimensions of the Permo-Triassic aquifer and consistent analytical results, no sample bias is expected. • The 3D geological models were constructed by Vulcan Group using its recent Lionheart 3D PSDM seismic data, calibrated to wells in a geophysical and structural sense, and extended to previously acquired seismic data to fully cover the Phase One and adjacent Project area. Key stratigraphic markers such as top and base reservoir were correlated via its unique seismic character. Isochrone/isochore mapping was used to quality control the interpretations and to avoid unrealistic models. Fault zones were picked only

Criteria	JORC Code Explanation	Commentary
		where they could be positively identified in the seismic data and were correlated in consideration of their offset, dip angle and depth. Where possible, basic seismic attributes such as coherency and local structural azimuth or dip were used to validate the interpretations. • Marker horizons were validated against wireline logs and check shot data from the acquired well data drilled in or adjacent to the south and northeast portions of the URGBF resource area. • The 2022/2023 new 3D seismic data broadly confirmed the previous in-house interpretation based on existing 2D seismic data and further enhanced the confidence in the local stratigraphic record. • Access to detailed data from studies of nearby geothermal wells acquired by Vulcan Group in 2020 improved understanding of the hydrogeological characteristics of the fault and fracture zones within the Permo-Triassic strata. The structurally complex fault damage zones are interpreted to typically represent conduits for localised high fluid flow of mineralised brine, due to higher fracture abundance and high fracture connectivity. • In the opinion of the Mineral Resources CP, Vulcan Group's revised Lionheart geological models, based on the totality of seismic data and drilling data available to date, provide an acceptable level of confidence in the spatial location and orientation of the top and bottom surfaces of Muschelkalk, Buntsandstein and Rotliegend Group successions, as well as the basement surface and fault zones. Further, the resulting models are considered to provide a reasonable approach for estimating Gross Rock Volumes, for use in Resource Estimation.
Sample security	• The measures taken to ensure sample security.	• Vulcan Group's 2019 through 2022 brine sampling programs were conducted by Vulcan Group employees. Samples were transferred with chain of custody from sample site to analytical laboratories that included: the Vulcan Group Lab in Karlsruhe, the Karlsruhe Institute of Technology (KIT), University of Heidelberg (Uni HD), and IBZ-Salzchemie GmbH & Co. KG in Halsbruecke, Germany. • Independent sampling by the DFS CP was discussed earlier in JORC Table 5.1 Section 1, under "Verification of sampling and assaying."

Criteria	JORC Code Explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	- A review and check of the Lionheart Resource Estimations was completed by an external consultant independent from Vulcan Group (GLJ). In addition, the CP (independent of Vulcan Group) conducted a review of all Vulcan Group activities that supported Resource Estimation and the activities of the external resource check consultant. - The DFS CP assisted with, and reviewed, the adequacy of Vulcan Group's sample collection, sample preparation, security, analytical procedures and QA/QC protocol, and conducted a site inspection of the Vulcan Group Property in November 2022. - The Mineral Resources CP participated in numerous and ongoing discussions and meetings, including a visit in July 2024, involving methods and interpretations for the exploration work to define the geometry and hydrogeological characterisation of the Permo-Triassic aquifer that forms the basis of the current resource model. - Independent sampling by the DFS CP was discussed earlier, in JORC Table 5.1 Section 1, under "Verification of sampling and assaying."

5.2 REPORTING OF EXPLORATION RESULTS

Table 5.2: JORC Table: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	- Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. - The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	- The Project area within the URVBF is comprised of 17 licences (16 (main) exploration licences and one production licence including having access to one exploration and production licence). See section 8.5.4 of the Prospectus (and section 7.5.4 of the Information Memorandum) for further information, noting that some licences are for both production and exploration. Rift Nord is an exploration licence where Vulcan Group has an agreement to develop geothermal brine Projects in return for a royalty on production. Landau Sued is a production licence which Vulcan has agreed to purchase 100%, with a production royalty attached. All of the licenses (apart from Lampertheim, Lampertheim II, Löwenherz, Waldnerturm and Ried) collectively cover the current lithium brine Mineral Resources described in this document. In addition, Vulcan Group has a further 155 km² of licence area granted within the URGBF on the French side. For present purposes, the Insheim, Landau Sued and Rift Nord licences are referred to as Vulcan Group's Phase One Lionheart Project area. - An Exploration Licence is issued pursuant to the German Federal Mining Act (Bundesberggesetz: bBergG) which defines freely mineable Mineral Resources as property of the state that is administered by state authorities. Accordingly, state permits are required for exploration and extraction. Vulcan Group requires both an Exploration Licence and an Extraction Licence or Mining Proprietorship to ultimately produce from its holdings. Any future geothermal brine production from any site would also require granting of a Production Licence plus completion of an operating plan and planning approval procedure that comply with the Act on the Assessment of Environmental Impacts. - An Exploration Licence is granted for a maximum of five years and can be extended by a further three years under certain conditions. If exploration has not commenced within one year of the licence being granted, the licence may be revoked. The same result may apply if exploration is interrupted for more than one year. The Exploration Licence is merely a legal title for the exploration of Mineral Resources in the granted area and is not sufficient to carry out technical programs such as seismic surveys or exploration work in the form of drilling. For such purposes, an operating plan (Betriebsplan) must be approved by the responsible state authority.

Criteria	JORC Code Explanation	Commentary
		• An Exploration Licence shall accord the holder the exclusive right to: Explore for the geothermal resources specified in the licence; to extract and acquire ownership in the resources that must be stripped or released during planned explorations; to erect and operate facilities that are required for exploring the resources and for carrying out related activities. • The Mineral Resource CP was advised by Vulcan Group that all Exploration and Production Licences covering its Lionheart area were in good standing at the Effective Date of the current Mineral Resource Estimate. A tabulation of Vulcan Group's Exploration Licence holdings within the Lionheart area is presented below. • The Insheim licence in the southern area of the licence group is 1,900 hectares and is centred at UTM 439040 m Easting, 5444442 m Northing, in the WGS84 UTM Zone 32N Projection. • The Rift Nord licence in the southern area of the licence group is 6,483 hectares and is centred at UTM 435535 m Easting, 5442945 m Northing, in the WGS84 UTM Zone 32N Projection. • The Landau Sued licence in the southern area of the licence group is 1,941 hectares and is centred at UTM 435916 m Easting, 5448130 m Northing, in the WGS84 UTM Zone 32N Projection. • Vulcan Group has 100% interest in the Insheim licence, and an agreement to acquire 100% of the Landau-Sued license. In Rift Nord, Vulcan Group has a 100% right to develop any new geothermal-lithium brine Project there, subject to a production royalty. • On December 7, 2022 Vulcan Group and Geo Exploration Technologies GmbH, Mainz signed a shared Licence agreement. Under the terms of the agreement Vulcan Group has the exclusive right to explore and develop lithium and geothermal energy on the northern part of Geo Exploration Technologies' Rift Nord Licence based on a royalty agreement. The agreement has been approved in writing by the Rheinland Palatinate government office, which is managed by the Mainz State Office, Council for Geology and Mining, and is subject to formal registration of joint ownership of the licence by the same office.

Criteria	JORC Code Explanation	Commentary
		• The Insheim production Licence and Insheim Geothermal Power Plant were acquired by Vulcan Group through the 100% acquisition of Pfalzwerke geofuture GmbH effective on 1. of January 2022. • On November 5, 2021, Geo-x GmbH, Landau, owner of the Landau geothermal plant and Landau-Süd geothermal production licence, was granted 100% of the Ilka Exploration Licence for Lithium exploration by the Rheinland Palatinate government office, which is managed by the Mainz State Office, Council for Geology and Mining. Geox is currently owned by IKAV Invest S.à.r.l (IKAV), an international asset management group focused on renewable energy and infrastructure projects. Vulcan and Geox/IKAV have been operating under two existing agreements over the Geox assets. Under the agreements, Vulcan was a party to a brine offtake agreement (subject to Vulcan expenditure milestones) with Geox and a Joint Venture agreement with IKAV for further geothermal drilling and development activities (also subject to Vulcan expenditure milestones). This acquisition of Geox replaces the existing agreements and enables Vulcan to simplify the operation of its geothermal and brine production assets in its upstream development for the Project. The wells and plant within the current Geox operation are currently undergoing a workover of the wells. Vulcan will take control and fund this workover process and will also install a heat exchanger to supply renewable district heating to the City of Landau in the short-term. As part of its wider Project construction, Vulcan intends to dismantle the current geothermal power plant at Geox, increase brine production from the licence area, and start supplying local consumers with renewable heating and power via its GLEP to be built in the local industrial park. Vulcan currently estimates 20% of Phase One upstream production will come from this licence area. In the process, Vulcan will also extract lithium chloride from the brine, as part of its wider Phase One operation, which will supply European automakers, including Stellantis. • The CP notes that there is always some risk or uncertainty that government regulations and policies could change between the issuance and termination dates of Exploration Licences, Production Licences and related permits issued by state authorities.

Criteria	JORC Code Explanation	Commentary
		- Any future geothermal and/or lithium brine production would require an operating plan and planning approval procedure that complies with the Act on the Assessment of Environmental Impacts. - In the URGBF, induced seismicity is a potential risk which can be caused by injection of brine. The CP notes that mitigation of such risk may be addressed by the following activities, among others: - Performing regular seismic monitoring, as is currently practiced by Vulcan Group at its Insheim wells and plant; - Reducing production flow rates temporarily if seismicity occurs during the operational Phase.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	- The URG is under active exploration for its geothermal potential by multiple companies. Geothermal production is currently occurring at several sites other than those in which Vulcan Group is involved. As a result, important geological and brine data developed in support of non-Vulcan Group initiatives and evaluations is present. This has been accessed to the maximum degree possible by Vulcan Group for application in its own exploration and development programs. - Historical brine geochemical analytical results include historical analysis from the Landau, Insheim, Soultz, Brühl, and Vendenheim geothermal sites from 2019 to 2021. This includes samples from the Buntsandstein Group aquifer (n=6) and the Rotliegend Group-basement aquifer (n=11). The areal weighted mean concentration of these samples is 181 mg/l lithium. The historical data are presented in referenced journal manuscripts and the Mineral Resources CP has verified that the analytical protocols were standard in the field of brine analysis and conducted at university-based and/or accredited laboratories. The historical geochemical information was used as background information and was also used as part of the Resource Estimation process. - GeotIS and GeORG data were evaluated and used to support construction of the 3D geological model used in Vulcan Group's current Mineral Resource Estimates. GeotIS and GeORG are digital geological atlases with emphasis on geothermal energy. They provide access to extensive compilations of well data, seismic profiles, information, and interpreted schematic cross sections from the evaluation of 2D seismic data with emphasis on deep stratigraphy and aquifers in Germany. The raw

Criteria	JORC Code Explanation	Commentary
		data, such as seismic data, are not available, as they are owned by the respective energy companies, but data profiles have been collated and interpreted for inclusion in the representative geo-dataset information systems. • The Lionheart Project area (Lionheart) and Taro-Lisbeth Licence area 3D modelling was improved beyond the constraints of GeoORG subsurface information through Vulcan Group's 2020 acquisition of 2D seismic profile lines for these areas. This 2D seismic data acquisition was then extended to Vulcan Group's other licence areas across the URG. These data were acquired by Vulcan Group specifically for the purpose of improving the associated 3D geological model. The seismic information and subsequent 3D geological models were re-interpreted by Vulcan Group as part of Vulcan Group's 2020-22 exploration work. • Any modelling or data artifacts within the model space were addressed by Vulcan Group and/or an independent consultant (GLJ) with involvement of the CP, in advance of the current Mineral Resource modelling. • Detailed studies of data from geothermal well Brühl GT-1 which is located ca. 5 km south of Vulcan Group's Ludwig licence and drilled in 2013, were carried out by Vulcan Group in 2020 to better understand the hydrogeological characteristics of the fault/fracture zones within the surrounding Permo-Triassic strata. The dataset included detailed lithological log and downhole wireline log information that included FMI-GR (resistivity image, caliper), DSI-GPIT-PPS-GR (sonic, caliper), LDS-GR (density, photo electric factor), and UBI-GR (acoustic image). Vulcan Group commissioned GeoT, now part of Vulcan Group, to describe and characterise this nearby well data. Specific focus was placed on the Buntsandstein Group pore space and micro-fractures to develop comparative models for the Permo-Triassic strata underlying the Lionheart and Taro areas. Insight gained from this detailed work was subsequently applied by Vulcan Group across the broader spatial extent of the URG.
Geology	• Deposit type, geological setting and style of mineralisation.	• The lithium mineralisation at the URGBF is situated within confined, subsurface aquifers associated with the Permocarboniferous Rotliegend Group, the Lower Triassic Buntsandstein Group, and the Middle Triassic Muschelkalk Group (collectively, the Permo-Triassic strata) sandstone aquifers and carbonates situated within the URGBF at depths of between 2,165 and 4,004 m below surface.

Criteria	JORC Code Explanation	Commentary
		• The Permo-Triassic strata are comprised predominantly of terrigenous sand facies, with minor shales, carbonates, and anhydrites, deposited in arid to semi-arid conditions in fluvial, sandflat, lacustrine and eolian sedimentary environments. • The various facies exert controls on the porosity (1% to 27%) and permeability (<1 to >100 mD) of sandstone sub-units. Within the Permo-Triassic strata, porosity, permeability, and fluid flow rates are dependent on the fault, fracture and micro-fracture zones that are targeted by geothermal companies in the URGBF. • Lithium mineralisation occurs in the brine that is occupying the Permo-Triassic aquifer pore space. • With respect to a deposit model, the lithium chemical signature of the brine is believed to be controlled by geothermal fluid-rock geochemical interactions. With increasing depth, total dissolved solids (TDS) increase in NaCl-dominated brine. Lithium enrichment associated with these deep brines is related to interaction with hot crystalline basement fluids and/or dissolution of micaceous materials at higher temperatures. • Vulcan Group's current URGBF geological models benefit from reinterpretation of existing 2D and 3D seismic data acquired in 2020-22 by Vulcan Group, as well as its 2022/2023 proprietary 3D seismic data. Depending upon the area considered, the seismic reinterpretation program mapped in detail four formation horizons based on their uniqueness within the seismic profiles. Faults were interpreted where doubling of a specific reflector occurs (thrust fault) or where a specific reflector is missing (normal fault). Numerous substantial faults penetrating through the Buntsandstein Group strata are interpreted for the entire Vulcan Group URGBF in the most recent geological model. The seismic interpretation mapped, in detail, formation horizons based on the uniqueness of the marker horizons within the seismic profiles. Faults were interpreted by evaluating every tenth inline and crossline (line spacing of approximately 20 m). To be interpreted as a fault zone, a feature was required to have a minimum horizontal extension of 400 m. Damage zone envelopes associated with particularly well-defined faults were developed through modelling and are applied as 200 m fault damage zone half widths from the fault centre. • In the opinion of the Mineral Resources CP, the current geological models provide a level of confidence that is reasonable in terms of identifying the spatial location and

Criteria	JORC Code Explanation	Commentary
		orientation of the Buntsandstein Group, Rotliegend Group, Muschelkalk zone, basement and constituent faults for use in the current resource Estimates. The structurally complex fault damage zone areas are interpreted from geological modelling as representing zones for localised high fluid flow of mineralised brine, due to higher fracture abundance and connectivity.
Drill hole Information	- A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - down hole length and interception depth - hole length. - If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	- Within the Lionheart area Vulcan Group has yet to conduct any new drilling or coring programs. However, the current Mineral Resource Estimation was able to utilise subsurface lithological information from existing production/re-injection wells that Vulcan Group owns or has agreements to access, as well as historical wells within and adjacent to the holding. - There are numerous historical geothermal wells or petroleum wells drilled by other companies that extend deep enough to penetrate Permo-Triassic strata within the URGBF licence area. - Location coordinates plus orientation information for wells used to assess the lithium concentration of brine within Permo-Triassic aquifers covered by Vulcan Group's URGBF holdings are tabulated below. - Coordinate system: DHDN/3-degree Gauss zone 3, EPSG:31463.

Criteria	JORC Code Explanation	Commentary																																																																														
		<table><tr><th>Hole Name</th><th>Collar Easting (m)</th><th>Collar Northing (m)</th><th>Collar Elevation (m)</th><th>Azimuth (deg)</th><th>Total Depth (TVDSSm)</th><th>Top Perforation (TVDSSm)</th><th>Base Perforation (TVDSSm)</th></tr><tr><td>Landau Gt-La1</td><td>3436152</td><td>5450302</td><td>149</td><td>270</td><td>-2896</td><td>-2324</td><td>-2896</td></tr><tr><td>Landau Gt-La2</td><td>3436149</td><td>5450308</td><td>149</td><td>90</td><td>-3107</td><td>-2135 -2726</td><td>-2641 -2922</td></tr><tr><td>Insheim GT11</td><td>3438343</td><td>5446624</td><td>139.78</td><td>146</td><td>-3410</td><td>-3113</td><td>-3410</td></tr><tr><td rowspan="4">Insheim GT11b</td><td rowspan="4">3438343</td><td rowspan="4">5446624</td><td rowspan="4">139.78</td><td rowspan="4">146</td><td rowspan="4">-3611</td><td>-2319</td><td>-2624</td></tr><tr><td>-2657</td><td>-2680</td></tr><tr><td>-2850</td><td>-2873</td></tr><tr><td>-2972</td><td>-3611</td></tr><tr><td>Insheim GT12</td><td>3438345</td><td>5446617</td><td>139.78</td><td>34</td><td>-3525</td><td>-2775 -3253</td><td>-3081 -3525</td></tr><tr><td>Soultz EPS1</td><td>3417106</td><td>5422154</td><td>176.6</td><td>n/a</td><td>-2035</td><td>-</td><td>-</td></tr><tr><td>Brühl GT1</td><td>3465862</td><td>5472347</td><td>98.3</td><td>n/a</td><td>-3174</td><td>-3022</td><td>-3183</td></tr><tr><td>Vendenheim GT1</td><td>3409685</td><td>5390570</td><td>135</td><td>-120-130</td><td>-4515</td><td>-</td><td>-</td></tr></table>	Hole Name	Collar Easting (m)	Collar Northing (m)	Collar Elevation (m)	Azimuth (deg)	Total Depth (TVDSSm)	Top Perforation (TVDSSm)	Base Perforation (TVDSSm)	Landau Gt-La1	3436152	5450302	149	270	-2896	-2324	-2896	Landau Gt-La2	3436149	5450308	149	90	-3107	-2135 -2726	-2641 -2922	Insheim GT11	3438343	5446624	139.78	146	-3410	-3113	-3410	Insheim GT11b	3438343	5446624	139.78	146	-3611	-2319	-2624	-2657	-2680	-2850	-2873	-2972	-3611	Insheim GT12	3438345	5446617	139.78	34	-3525	-2775 -3253	-3081 -3525	Soultz EPS1	3417106	5422154	176.6	n/a	-2035	-	-	Brühl GT1	3465862	5472347	98.3	n/a	-3174	-3022	-3183	Vendenheim GT1	3409685	5390570	135	-120-130	-4515	-	-
Hole Name	Collar Easting (m)	Collar Northing (m)	Collar Elevation (m)	Azimuth (deg)	Total Depth (TVDSSm)	Top Perforation (TVDSSm)	Base Perforation (TVDSSm)																																																																									
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Data aggregation methods	- In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. - Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. - The assumptions used for any reporting of metal equivalent values should be clearly stated.	- For the Lionheart licences, the average lithium content from brine collected by Vulcan Group from six geothermal wells, (including its 100%-owned Insheim geothermal wells and plant), was used as the representative grade for Mineral Resource Estimation. This grade was 181 mg/L Lithium (n=13 total metal analyses by ICP-OES). In addition, a detailed assessment of Permo-Triassic aquifer brine at the Insheim resource area production well yielded 181 mg/L Lithium (n=26 analyses). This grade was also used as the regional Lithium brine value for previous resource Estimates (ASX, 2020), and also for the current update. These brine geochemical results demonstrate that the Permo-Triassic brine in the Upper Rhine Graben has a relatively homogeneous lithium chemical composition in the vicinity of Vulcan Group’s central and southern licence areas. - The brine geochemical data presented and evaluated by Vulcan Group represent laboratory analytical values. Averaging of results has been carried out in some instances but resulting mean values are clearly identified as such where this has taken place. - Elemental lithium values applied in the current Vulcan Group resource Estimate were converted to Lithium Carbonate Equivalent (“LCE”) using a conversion factor																																																																														

Criteria	JORC Code Explanation	Commentary
		of 5.323, based on the stoichiometric quantity of lithium in Li_2CO_3 . Reporting lithium values in LCE units is standard lithium industry practice.
Relationship between mineralisation widths and intercept lengths	- These relationships are particularly important in the reporting of Exploration Results. - If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. - If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	- Vulcan Group has operating geothermal wells with proven drilling information and ongoing measurement of lithium grades, within the Insheim and Landau licences in the core of the field. - With respect to the geothermal well data used, all engineering aspects of the wells are documented. Hence, the Mineral Resources CP has a good indication of the true vertical depths of the perforation windows used to sample and pump brine from the Permo-Triassic aquifers to the surface, for geothermal power generation. - As mineralisation is related to liquid brine within a confined aquifer, intercept widths are not a critical concept. Well perforation points essentially gather mineralised brine from the aquifer at large, assuming the pumping rate is sufficient to create drawdown in the aquifer.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	- The current associated News Release and previous News Releases by Vulcan Group include explanatory figures that were used in reporting of Project information to support respective Resource Estimation disclosures. - All map images include scale and direction information such that the reader can properly orientate the information being portrayed.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	- Comprehensive reporting of all exploration results is presented in the associated News Release and in the Technical Reports associated with Vulcan Group's URG Exploration Licences. - There are no outlier analytical results in the geochemical dataset used to evaluate the lithium concentration of Permo-Triassic aquifer brine. The lithium brine values, within analytical error margins, are interpreted to be relatively homogenous in the vicinity of Vulcan Group's Exploration Licences, as informed by brine analytical data assembled by Vulcan Group.
Other substantive	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results;	A substantive amount of historical data was used to investigate and characterise the configuration and hydrogeological properties of the Permo-Triassic aquifers. These aquifers include the Buntsandstein Group, Rotliegend Group and Muschelkalk

Criteria	JORC Code Explanation	Commentary
exploration data	geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Group. Hydrogeological properties include porosity and permeability. Historical geochemical data were used to assess the lithium concentration in Permo-Triassic aquifer brine. A total of 43 historical brine analysis records were compiled. These historical data were verified by Vulcan Group, and it is the opinion of the Mineral Resources CP that: • The Permo-Triassic aquifer is relatively homogeneous in terms of lithium concentration within the extent of Vulcan Group's Lionheart Licences. • The verification of historical geochemical results produced a geochemical dataset that is adequately reliable for inclusion in the current Resource Estimation. • During 2020, Vulcan Group commissioned GeoT, now part of Vulcan Group, to: 1) review the acquired seismic information and nearby well data, 2) to conduct hydrogeological characterisation studies specific to URGBF Permo-Triassic fault/fracture zones, and 3) make inferences on potential geothermal well (and Lithium brine) production scenarios and their influence on fluid flow within and adjacent to fault/fracture zones. The Mineral Resources CP has reviewed a series of related internal reports and found them to be factually prepared by persons holding post-secondary degrees with an abundance of experience and knowledge in geothermal and geochemical evaluation within the URGBF. • Numerous geothermal, or oil and gas wells, were historically drilled by companies other than Vulcan Group within the boundaries of the URGBF licences. • Intersected formation tops were reviewed for five historical wells in the Lionheart (i.e., Insheim, Landau, and Rift) development area. Two of these wells (Insheim GT11 and GT12) intersected formation tops of the Muschelkalk, Buntsandstein and Rotliegend groups as well as the basement rock.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological	• The following next steps are planned as Vulcan Group progresses the Field Development Plan and execution of Phase One of the Project in the Upper Rhine Graben Brine Field: ○ Drill development wells in the Lionheart area per the plan outlined in this Competent Person Report with first wells to be drilled at the Schleidberg well site. There are several benefits from the early development of these wells:

Criteria	JORC Code Explanation	Commentary
	interpretations and future drilling areas, provided this information is not commercially sensitive.	• To gather improved reservoir data through enhanced well logging, well tests, and core data which will further improve the geomodel and reservoir models, resulting in improved static and dynamic models. • Validate the flow rate assumptions for brine production and re-injection further to the data available from the existing Insheim and Landau wells. ○ Conduct flow tests and pressure transient analysis at the new wells to validate assumptions for lithium concentrations in the brine, compositional analysis of the produced fluids, and reservoir behaviour. This data will aid in validation of assumptions, improved reservoir modelling, further drill plans for well placement, and operational strategies. ○ Conduct research on the potential for a “recharge effect” on lithium from basement rocks, to Estimate the long-term effects on the lithium resources in the region and incorporate into the dynamic flow models. ○ Continue with optimisation of the execution plan and preparation for operational readiness.

5.3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Table 5.3: JORC Table: Estimation and reporting of Mineral Resources

Criteria	JORC Code Explanation	Commentary
Database integrity	- Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource Estimation purposes. - Data validation procedures used.	- A review of compiled data was conducted by the Mineral Resource CP who, to the best of their knowledge, can confirm the data was generated with proper procedures, has been accurately transcribed from the original source and is suitable for use in the Resource Estimations. - Independent sampling by the DFS CP was discussed earlier in JORC Table 5.1 Section 1, under “Verification of sampling and assaying.” 3D geological models were prepared for the Vulcan Group licences, with the use of extensive 2D seismic data and 3D data. These data were interpreted by Vulcan Group and represented in modelling software Petrel. Interpreted features included picks for the upper and lower surfaces of the Muschelkalk Formation, Buntsandstein Group and Rotliegend Group, plus fault locations. Model representations were checked by the Mineral Resources CP (GLJ). In the opinion of the Mineral Resources CP, these geological representations, and the seismic data used to develop them are reasonable and appropriate for Resource Estimation. - Numerous hydrodynamic property studies and data were compiled from throughout the URGBF by Vulcan Group, to support the selection of appropriate values for Effective Porosity (Phie) and Net to Gross ratio (NTG) to use in Resource Estimation. In the opinion of the CP, these studies, and the Resource Estimation parameters that were derived from them, are reasonable and appropriate. - Based on the Mineral Resources CP’s previous experience in estimating lithium brine resources, and the DFS CP’s extensive experience with associated sampling and analytical protocols, the CPs are satisfied with the integrity of the chemistry, geological and hydrodynamic datasets and information sources used to Estimate Mineral Resources. - For an additional summary of the lithium analytical results used in the Resource Estimation, please see ASX announcements by Vulcan Group dating 13 February 2023, 20 August 2020, and 4 December 2019. Recent lithium data from the lithium extraction Pilot Plant operations at the Insheim-Landau geothermal wells was materially similar and reinforced the confidence in the average values derived from these original results, within analytical error.

Criteria	JORC Code Explanation	Commentary
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The Mineral Resources CP visited the Vulcan Group facilities and office on the days of July 30-31, 2024. Tours of the Insheim and Landau operating sites, current and future well sites as well as the CLP's future location in the Höchst Industrial Park in Frankfurt were visited. • The DFS CP visited the Vulcan Group properties and Karlsruhe offices and laboratory for three full days, from November 8-10, 2022 and July 30-31, 2024. The inspection included detailed tours of the two operating sites (Landau and Insheim), a review of the in-progress 3D seismic survey on the Insheim licence, and reconnaissance visits to all the remaining licences. • Independent sampling by the DFS CP was discussed earlier in JORC Table 5.1 Section 1, under "Verification of sampling and assaying."
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource Estimation. • The use of geology in guiding and controlling Mineral Resource Estimation. • The factors affecting continuity both of grade and geology.	• The addition, and reinterpretation, of new and existing 2D and 3D seismic data, combined with verification of lithium grades over time from lithium pilot plant operations at the geothermal production well sites, significantly increased the Mineral Resources CP's confidence level in the subsurface 3D geological models that supported Resource Estimation. • The interpreted seismic data and subsequent structural model enabled the Mineral Resources CP to create detailed Muschelkalk zone, Buntsandstein Group, Rotliegend Group surfaces. The 2D seismic profiles (including the GeORG data and other more recently acquired data) covered 100% of Vulcan Group's URGBF licences. • Using the seismic profiles, subsurface stratigraphic horizons were correlated throughout the Lionheart licences. The marker horizons were validated against wireline logs from wells drilled in the southern and adjacent to the northern portions of the Lionheart licence areas. • The fault/fracture zones were distinguished in the seismic profiles. The vertical displacement of the fault zones on the seismic profiles enabled definition of the activity level of the fault zone, with many interpreted to be active. The fault zones were picked only where they could be positively identified in the seismic lines and the faults were correlated in consideration of their offset, dip angle and depth.

Criteria	JORC Code Explanation	Commentary
		- The vertical displacement of the fault zone on the seismic profiles was also used to make calculated inferences on the horizontal width of the fault zone in the geological model. - The addition of 2D and 3D seismic data significantly increased the confidence level in the subsurface 3D geological model.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The geometry of the Permo-Triassic strata in the URG has a gentle northward dip at the southern end of the field (i.e., at the Ortenau licence area) which transitions to a south-east dip further northwards at the Taro licence area. The top and base surface elevations of the Buntsandstein Group under the URG licences are approximately from 2000 m (south) to 3800 m (north) subsea (m SS) with an average thickness range of 310 m in the north and 380 m in the south, up to 475m thick locally. The top and base surface elevations of the Rotliegend Group under the URG licences south of the Taro licence are approximately from 2200 m SS to 3300 m SS with an average thickness range of 120 m to 310 m, across the URG.
Estimation and modelling techniques	- The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. - The availability of check Estimates, previous Estimates and/or mine production records and whether the Mineral Resource Estimate takes appropriate account of such data. - The assumptions made regarding recovery of by-products. - Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	<i>The Lithium Resource is defined as the summation of the following, for all unique units within a given Licence:</i> <i>Total Volume of the Brine-Bearing Aquifer (GRV) x Average Effective Porosity (Phie) x Average Net to Gross (NTG) x Average Concentration of Lithium in the Brine (C).</i> The parameter values used in the Resource Estimate are summarised in the table below.

Criteria	JORC Code Explanation	Commentary																																																																																																																																																																																																																																																																					
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource Estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<table><tr><th>Licence/ Area</th><th>Reservoir</th><th>Classification</th><th>GRV km³</th><th>Avg. NTG %</th><th>Avg. Phie %</th><th>Avg. Li mg/L</th><th>Elemental Li t</th><th>LCE kt</th></tr><tr><td>Insheim</td><td>*MUS, BST, ROT, BM</td><td>Measured</td><td>13</td><td>69</td><td>9</td><td>181</td><td>151,823</td><td>808</td></tr><tr><td>Rift-North</td><td>*MUS, BST, ROT, BM</td><td>Measured</td><td>9.5</td><td>70</td><td>9</td><td>181</td><td>110,181</td><td>586</td></tr><tr><td></td><td>*MUS, BST, ROT, BM</td><td>Indicated</td><td>29</td><td>71</td><td>9</td><td>181</td><td>355,443</td><td>1892</td></tr><tr><td>Landau South</td><td>*MUS, BST, ROT, BM</td><td>Measured</td><td>12</td><td>68</td><td>9</td><td>181</td><td>134,677</td><td>717</td></tr><tr><td></td><td>*MUS, BST, ROT, BM</td><td>Indicated</td><td>2.7</td><td>69</td><td>9</td><td>181</td><td>29,620</td><td>158</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Flaggenturm</td><td>BST</td><td>Indicated</td><td>7</td><td>90</td><td>10</td><td>181</td><td>115,215</td><td>613</td></tr><tr><td></td><td>BST</td><td>Inferred</td><td>37</td><td>65</td><td>9</td><td>181</td><td>391,201</td><td>2,082</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Kerner</td><td>BST</td><td>Indicated</td><td>5</td><td>90</td><td>10</td><td>181</td><td>76,242</td><td>406</td></tr><tr><td></td><td>BST</td><td>Inferred</td><td>13</td><td>65</td><td>9</td><td>181</td><td>132,558</td><td>705</td></tr><tr><td>Kerner Ost</td><td>*MUS, BST, ROT</td><td>Indicated</td><td>4.3</td><td>73</td><td>8</td><td>181</td><td>66,708</td><td>355</td></tr><tr><td>Taro</td><td>*MUS, BST, ROT</td><td>Indicated</td><td>14.5</td><td>73</td><td>8</td><td>181</td><td>237,362</td><td>1,263</td></tr><tr><td>Ortenau</td><td>*MUS, BST, ROT</td><td>Indicated</td><td>57</td><td>73</td><td>8</td><td>181</td><td>659,013</td><td>3,507</td></tr><tr><td></td><td>BST</td><td>Inferred</td><td>105</td><td>73</td><td>8</td><td>181</td><td>1,883,212</td><td>10,024</td></tr><tr><td>Mannheim</td><td>BST</td><td>Indicated</td><td>4</td><td>90</td><td>10</td><td>153</td><td>54,111</td><td>288</td></tr><tr><td></td><td>BST</td><td>Inferred</td><td>32</td><td>65</td><td>9</td><td>153</td><td>290,312</td><td>1,545</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Ludwig</td><td>BST</td><td>Indicated</td><td>7</td><td>90</td><td>10</td><td>153</td><td>93,220</td><td>496</td></tr><tr><td></td><td>BST</td><td>Inferred</td><td>22</td><td>65</td><td>9</td><td>153</td><td>199,226</td><td>1,060</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Therese</td><td>BST</td><td>Indicated</td><td>2</td><td>90</td><td>10</td><td>153</td><td>29,907</td><td>159</td></tr><tr><td></td><td>BST</td><td>Inferred</td><td>22</td><td>65</td><td>9</td><td>153</td><td>200,708</td><td>1,068</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>mg/L</td><td></td><td>kt</td></tr><tr><td>Total LCE</td><td></td><td>Measured</td><td></td><td></td><td></td><td>181</td><td></td><td>2,112</td></tr><tr><td></td><td></td><td>Indicated</td><td></td><td></td><td></td><td>178</td><td></td><td>9,137</td></tr><tr><td></td><td></td><td>Inferred</td><td></td><td></td><td></td><td>172</td><td></td><td>16,484</td></tr></table> <i>Note 1: Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.</i> <i>Note 2: The weights are reported in metric tonnes (1,000 kg or 2,204.6 lbs). Numbers may not add up due to rounding of the resource value percentages.</i> <i>Note 3: Reservoir abbreviations: MUS – Muschelkalk Formation, BST – Buntsandstein Group; ROT – Rotliegend Group; BM – Basement.</i> <i>Note 4: To describe the resource in terms of industry standard, a conversion factor of 5.323 is used to convert elemental Li to Li2CO3, or Lithium Carbonate Equivalent (LCE).</i> <i>Note 5: NTG and Phie averages have been weighted to the thickness of the reservoir. These averages are consolidations of multiple local zones and therefore multiplied</i>	Licence/ Area	Reservoir	Classification	GRV km³	Avg. NTG %	Avg. Phie %	Avg. Li mg/L	Elemental Li t	LCE kt	Insheim	*MUS, BST, ROT, BM	Measured	13	69	9	181	151,823	808	Rift-North	*MUS, BST, ROT, BM	Measured	9.5	70	9	181	110,181	586		*MUS, BST, ROT, BM	Indicated	29	71	9	181	355,443	1892	Landau South	*MUS, BST, ROT, BM	Measured	12	68	9	181	134,677	717		*MUS, BST, ROT, BM	Indicated	2.7	69	9	181	29,620	158										Flaggenturm	BST	Indicated	7	90	10	181	115,215	613		BST	Inferred	37	65	9	181	391,201	2,082										Kerner	BST	Indicated	5	90	10	181	76,242	406		BST	Inferred	13	65	9	181	132,558	705	Kerner Ost	*MUS, BST, ROT	Indicated	4.3	73	8	181	66,708	355	Taro	*MUS, BST, ROT	Indicated	14.5	73	8	181	237,362	1,263	Ortenau	*MUS, BST, ROT	Indicated	57	73	8	181	659,013	3,507		BST	Inferred	105	73	8	181	1,883,212	10,024	Mannheim	BST	Indicated	4	90	10	153	54,111	288		BST	Inferred	32	65	9	153	290,312	1,545										Ludwig	BST	Indicated	7	90	10	153	93,220	496		BST	Inferred	22	65	9	153	199,226	1,060										Therese	BST	Indicated	2	90	10	153	29,907	159		BST	Inferred	22	65	9	153	200,708	1,068																mg/L		kt	Total LCE		Measured				181		2,112			Indicated				178		9,137			Inferred				172		16,484
Licence/ Area	Reservoir	Classification	GRV km³	Avg. NTG %	Avg. Phie %	Avg. Li mg/L	Elemental Li t	LCE kt																																																																																																																																																																																																																																																															
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Criteria	JORC Code Explanation	Commentary
		together will not equate to the global elemental lithium values presented. The elemental lithium values presented are determined separately using detailed data for each zone and then summed together to show a total value for the purposes of this summary table. Note 6: GRV refers to gross rock volume, also known as the aquifer volume. GRV values presented in this table are rounded to the first significant figure for presentation purposes. The elemental lithium values presented are calculated using GRV values that have not been rounded. Note 7: Mineral Resources are considered to have reasonable prospects for eventual economic extraction under current and forecast lithium market pricing with application of Vulcan Group's A-DLE processing. Note 8: The values shown are an approximation and with globalised rounding of values in the presented summary table as per JORC guidelines, cannot be multiplied through to achieve the Mineral Resource Estimated volumes shown above. • The workflow implemented for the calculation of the Vulcan Group lithium-brine Resource Estimations included the following steps: ○ Based on seismic information, the geometry of the top and bottom surfaces of the Muschelkalk, Buntsandstein, and Rotliegend (where resolvable) were defined as well as 100 m of Basement ○ Based on seismic information, the faults within the Muschelkalk, Buntsandstein, and Rotliegend (where resolvable) were defined. ○ A conservative Fault Damage Zone (FDZ) half-width of 200m was defined for all faults based on the average displacement across the faults within the URGBF. ○ Estimation of volumes for applicable matrix bodies (Buntsandstein only) and FDZs within applicable geological units (depending on licence). ○ Identification of applicable Effective Porosity and Net to Gross Values for each of the volumes Estimated above. The Effective porosity was based on wireline well log data of three wells within the URGBF (Appenhofen 1, Offenbach GT1, and Brühl GT1) as well as published porosity and permeability core plug measurement data within the URG (see Estimation Methodology Section for references). In total, there are over 300 effective porosity measurements from core and outcrop analysis, and over 250 permeability measurements and/or interpretations for the Buntsandstein Group. Data points for the Rotliegend group include 62 core plug porosity measurements, as well as over 550

Criteria	JORC Code Explanation	Commentary
		permeability measurements from core plugs. Porosity versus permeability plots using these data help determine cut-offs for effective fluid flow within reservoirs (Canadian Oil and Gas Evaluation Handbook, 2005; Nelson, 1994) achievable because of the availability of production data from producing geothermal and oil and gas wells within the URGBF (Landau 207, 211, Appenhofen 1, Römerberg A to E). For the Permo-Triassic sediments in the URGBF, a porosity cut-off of 5 %, equivalent to a permeability cut-off of 0.02 mD, is reasonable for significant fluid flow to occur. Net thickness is then determined from this relationship by applying the 5 % effective porosity cut-off to the gross interval thickness. Determination of applicable average lithium concentration (C) for each licence, based on Vulcan Group's brine sampling and interpretation program. Determination of average grade (C) is discussed under "Data Aggregation" Methods" in Section 2. ○ Spreadsheet compilation of all volumes and applicable parameter values, followed by resource calculation, according to the equation noted above. ○ Confirmation of reasonable prospects of eventual economic extraction for the identified resource zones. • The current Mineral Resource Estimations replace and supersede the previously published Estimates for the Insheim, Landau (Landau Sued) and Rift (Rift Nord) licences. • The only element being Estimated is lithium, and consideration of deleterious elements is beyond the scope of this Project and resource Estimate. Determination of such factors is dependent on application of specific mineral processing and lithium recovery flowsheet assessments and comprehensive market studies. Based on the lithium extraction piloting that Vulcan Group has conducted since April 2021, no deleterious elements have been noted which have a materially negative effect on Vulcan Group's sorption-type lithium extraction process. • In the case of Landau Sued, Insheim and Rift Nord, the extent of the Measured Resource domain was estimated through dynamic modelling of a reasonable, future, full-scale recovery, and injection system. The overall circulation footprint of the system over a 15-year simulation period was used as the outer boundary (footprint) of the Measured Resource domain. This footprint generally conformed with the full spatial extents of the Insheim licence, and most of the Landau Sued licence. In the case of Rift Nord, the circulation footprint was considerably less than

Criteria	JORC Code Explanation	Commentary
		the licence extent. Portions of Rift Nord and Landau Sued that extend beyond the footprint were defined as Indicated Resource. - The average lithium-in-brine concentration used in the Mineral Resource Estimations is 181 mg/L for Phase One. - No top cuts or capping upper limits have been applied, or are deemed to be necessary, as confined lithium brine deposits typically do not exhibit the same extreme values as precious metal deposits. This statement is applicable to the Permo-Triassic aquifer lithium brine data in this study. - A cut-off grade / resource quantity analysis was not strictly applicable to the resource, due to the use of average grade in the static resource Estimate. However, it is noted that a grade for economic extraction of 100 mg/L has been established on a provisional basis, and that all resources are currently estimated to exceed that grade. - The unit volumes, parameter values, and resource Estimate calculations were checked and validated by the Mineral Resources CP. In the opinion of the CP, the volumes, parameter values and calculations are appropriate and provide Resource Estimate results that are reasonable for the assigned resource categories.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Not applicable. The lithium resource in the URG is a brine-hosted resource.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Cut-off considerations are discussed above.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating	- It is the CPs opinion that geothermal facilities and lithium brine extraction operations represent a feasible co-production opportunity. - Vulcan Group's lithium brine extraction pilot plants in Landau and Insheim (or future commercial operations) are situated after the heat exchanger, and therefore do not influence the geothermal operations of the plant. Any future plants would follow the same approach.

Criteria	JORC Code Explanation	Commentary
	Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	- Assuming the lithium extraction process causes only small compositional changes to the brine (which has been preliminarily shown in the geochemical data), the lithium-removed brine, as well as any evolved gases, could return to the subsurface aquifer via a reinjection well. Hence, it is assumed both operating interests (geothermal and lithium) are extracting their own commodity of interest with minimal interference between the two processes. - It is assumed that Vulcan Group could drill their own production/re-injection wells at the Lionheart licences to expand the existing production in the core of Vulcan Group's field. The 3D geological models completed for each licence shows there is a high degree of faulting with potential for high fluid flow in the Permo-Triassic strata underlying the Lionheart. - Dilution from re-injected brine has been factored into the production study on Phase One areas conducted by Vulcan Group, which shows a 1.8% annual lithium grade reduction on average over the Project life. Since this study was limited to brine modelled within the confines of the licence area, and since any potential "recharge effect" from basement rocks was also not modelled, this could prove conservative.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	- Vulcan Group uses an Adsorption-type Direct Lithium Extraction (A-DLE) process, similar to commercially operating A-DLE processes used on salar-type brines in Argentina and China. Because of environmental and meteorological considerations, Vulcan Group uses geothermal heat, instead of fossil gas and solar evaporation ponds, to drive the adsorption process and drive the subsequent concentration of the lithium eluate respectively. - It is the opinion of the CP that the extraction of lithium from salar-type brines using adsorption is commercially proven having been used since the 1990s, and the use of adsorption on the particular Upper Rhine Graben brine chemistry provides no technical impediment to the same process being applied, as evidenced by Vulcan Group's 3 year piloting programme. - Vulcan Group's lithium engineering team designed, and has since operated, a lithium extraction pilot plant demonstrating the sorption process on its geothermal brine since April 2021. Vulcan Group Energy Resources has operated its pilot plant at two existing geothermal operations (Insheim and Landau) since April 2021. The results of this operation back up the assumptions used in Vulcan Group's feasibility

Criteria	JORC Code Explanation	Commentary
		study and provide the basis for assumptions and predictions regarding metallurgical amenability. For the Lionheart Phase One of Vulcan Group's commercial operation, brine from these geothermal operations, combined with brine from additional planned geothermal production wells in the vicinity, will feed one lithium extraction plant (LEP), for a total annual rate of 24,000 TPA lithium hydroxide monohydrate (LHM) equivalent capacity in lithium chloride (LiCl).
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields Project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	- German Federal and State policy is targeting carbon neutral power and heating production, and EU policy targets the onshoring and bolstering the sustainability of lithium and other critical raw materials production. It is the opinion of the CP that combined geothermal energy and lithium extraction projects (such as Vulcan Group's Project) have the necessary environmental credentials to enable stakeholder support. - Vulcan Group's process has been designed to be very low waste and circular, in that all brine produced is re-injected into the reservoir, in materially the same state but just with most of the lithium extracted. The surface footprint of planned operations, being geothermal wells and plant, and lithium extraction plants, are very small compared to a traditional mine or salar operations, and sites have been selected to be located on industrial or farming land. It is therefore likely that Vulcan Group will have a low environmental impact, and in fact will have a net positive effect on the climate by decarbonising the lithium supply chain and energy supply. - In Lionheart, induced seismicity is a potential risk which can be caused by injection of brine. The CP notes that mitigation of such risk may be addressed by the following activities, among others: - Performing regular seismic monitoring, as is currently practiced by Vulcan Group at its Insheim wells and plant; - Reducing production flow rates temporarily if seismicity occurs during the operational Phase.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	- Bulk density is not applicable, or necessary to be applied, to the liquid, brine-hosted resource. - Details of the resource calculations are provided above.

Criteria	JORC Code Explanation	Commentary
	- The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. - Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	- The basis for the classification of the Mineral Resources into varying confidence categories. - Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). - Whether the result appropriately reflects the Competent Person's view of the deposit.	- The Vulcan Group Lionheart lithium brine Project has reasonable prospects for economic extraction based on aquifer geometry, delineation of fault zones using re-interpreted 2D and 3D seismic data, brine volume, brine composition, hydrogeological characterisation, porosity, fluid flow, and the advancement of Vulcan Group's lithium adsorption technology and subsequent test work through their pilot plants through thousands of hours of continuous processing data, and thousands of cycles of test work. - The updated Lionheart lithium brine Mineral Resource Estimations are classified as Measured and Indicated Mineral Resources, depending on location and availability of data. - Pertinent points to support a Measured and Indicated Mineral Resource classification within the producing core of the Upper Rhine Graben Brine Field, and Indicated classification within the wider fault damage zones include: 1) a greater level of confidence in the subsurface geological model due to Vulcan Group's acquisition of detailed 2D and 3D seismic data, 2) acquisition of a detailed downhole geophysical dataset to analyse the hydrogeological characteristics of a fault-associated fracture zone within a geothermal well, and 3) knowledge of Vulcan Group's commissioned lithium adsorption mineral processing test work and results, following thousands of hours of test work conducted over the course of 2.5 years, 4) Vulcan Group's acquisition of production/re-injection wells in the core of the field at Insheim, and agreement to access other production/re-injection wells at the neighbouring Landau geothermal plant, which has resulted in hundreds of additional analyses from live geothermal brine, and 5) Vulcan Group's integration of extensive reservoir production simulation into its models.

Criteria	JORC Code Explanation	Commentary
		The Mineral Resource Estimate has been prepared by a multi-disciplinary team that include geologists, reservoir engineers, hydrogeologists, geothermal specialists, and chemical engineers with relevant experience in Permo-Triassic and other brine geology/hydrogeology and lithium brine processing environments. There is collective agreement that the Vulcan Group Project has reasonable prospects for economic extraction at current and forecast lithium market pricing levels. Technical Report author Gabriella Carrelli, M.Sc., P. Geo takes responsibility for this statement, as Mineral Resources CP.
Audits or reviews.	The results of any audits or reviews of Mineral Resource Estimates.	Vulcan Group's Lionheart Phase One lithium brine Project consists of one field with one production centre fed by multiple well sites. Current Resource Estimation methodologies have been compared to past Estimation methods utilised in the DFS and PFS.
Discussion of relative accuracy/confidence	- Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource Estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. - The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	- In the opinion of the Mineral Resources CP, the Lionheart Measured and Indicated lithium brine Mineral Resource Estimations are reasonable for the Permo-Triassic aquifer within the Vulcan Group Lionheart licences. - Risks and uncertainties as they pertain to the lithium brine Mineral Resource Estimate include: - Risks and uncertainties associated with deep geothermal brine exploration are linked to the high cost of deep well drilling. As development continues, incorporation of associated results will reduce inherent Mineral Resource uncertainty and Project risk. - The reader should be aware that the reality of any geothermal or lithium brine recovery program is that the extent of brine recovery from the resource estimate zone will be a function of the design of the recovery/reinjection system and the connectivity of the subsurface brine zones. To some extent, it will not be feasible to capture all brine from the subsurface strata included in the resource estimate. - The planned brine production system will be based on doublets with a production well and reinjection well. It is noted that dilution factors caused by injecting the spent brine into the hydraulic system could influence the

Criteria	JORC Code Explanation	Commentary
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	operational timeline of a given well doublet, beyond the extent to which already modelled. ○ Localised high permeabilities can lead to channelling effects such that the geothermal reservoir potentially becomes inefficient in terms of capturing brine from a broader zone. Thus, the exploitation of fault zones can constitute a trade-off between high permeability and reduced reservoir volumes.

5.4 ESTIMATION AND REPORTING OF ORE RESERVES

Table 5.4: JORC Table: Estimation and Reporting of Ore Reserves

Criteria	JORC Code Explanation	Commentary
Mineral Resource Estimate for conversion to Ore Reserves	- Description of the Mineral Resource Estimate used as a basis for the conversion to an Ore Reserve. - Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	- The Mineral Resource Estimate was undertaken by the Mineral Resources CP as outlined in the previous section of this JORC Table 1 above and takes into account the reasonable potential for eventual extraction, based on aquifer geometry, delineation of fault zones using re-interpreted 2-D and newly acquired 3-D seismic data, brine volume, brine composition, hydrogeological characterisation, porosity, fluid flow, and the advancement of Vulcan Group's lithium sorption technology and subsequent test runs through their pilot plants. - The Ore Reserve estimate was undertaken by the Ore Reserves CP as outlined in this section. - Proved and Probable Ore Reserves are defined based on the Measured Mineral Resources for Lionheart, as required by the JORC Code. - All Mineral Resources are reported inclusive of Ore Reserves.
Site visits	- Comment on any site visits undertaken by the Competent Person and the outcome of those visits. - If no site visits have been undertaken indicate why this is the case.	- The Ore Reserves CP conducted two site visits on July 30-31, 2024, and November 8-10, 2022. The visit in 2024 included the Insheim geothermal plant, the LEOP, and the Schleidberg well site. - In the November 2022 site visit additional locations were visited which included the Landau geothermal plant, the Vulcan Group laboratory in Karlsruhe, and the 3D seismic operations while running Vibroseis equipment in the Insheim area. - Both site visits included the Vulcan Group corporate offices in Karlsruhe to interview Vulcan Group staff responsible for all aspects of the Project to review the dynamic flow modelling, field development plans, drilling plans, geothermal and lithium process engineering design, infrastructure design, regulatory, environmental, costs, economics, marketing, and communications plans.

Criteria	JORC Code Explanation	Commentary
Study status	- The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. - The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	- This Competent Person Report for the Project within the Phase One Lionheart area has been completed as of 13 December 2024, per this JORC Table 1. - The Bridging study is preceded by the DFS, with Taro excluded in this report from Phase One as part of the optimisation efforts to centralise the Project to one area. - The Bridging study has defined field development plans for Lionheart which are based on updated dynamic flow modelling linked to the revised geologic models (See previous section of this JORC Table 1). An iterative approach was taken to define optimal well placement. A well network has been defined for the design case which includes addition of 9 producer wells and 15 injector wells at Lionheart, to supplement the existing 2 doublets at Insheim and Landau. The modifying factors have been tested at several Vulcan Group pilots and have high level of certainty with technical and economic viability. - The Definitive Feasibility Study (DFS) was completed in February 2023, which covered Phase One to include Lionheart and Taro. Different to the PFS is deferral of Ortenau to a future phase of production (beyond Phase One). - A Pre-Feasibility Study (PFS) was previously completed in January 2021, for Taro-Lisbeth and Ortenau. - The results of the 2021 PFS and Phase Two data reported in the DFS should be treated with caution until they are updated with more recent parameters.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	A cut-off of 100mg/L Li has been applied to the production forecasts used in the field development plans. Dilution from the original 181 mg/l Li concentration is included in the forecasts with economic cut-off assumed at 100 mg/l Li. This cut off is not reached in the base case used in this study. For the low case, production economics are cut around the 20-year mark when lithium concentration drops below 100 mg/l Li in low case, and this still produces a positive NPV. In future studies, this cut off will be tested, as it is anticipated that the plant can run profitably below this level.
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e., either by	Measured Mineral Resources from the Lionheart licences are converted to Proved and Probable Ore Reserves, based on the results of the Bridging Study and with consideration of the modifying factors identified in the study. The results of the pilot

Criteria	JORC Code Explanation	Commentary
	application of appropriate factors by optimisation or by preliminary or detailed design). - The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. - The assumptions made regarding geotechnical parameters (e.g., pit slopes, stope sizes, etc), grade control and pre-production drilling. - The major assumptions made, and Mineral Resource model used for pit and stope optimisation (if appropriate). - The mining dilution factors used. - The mining recovery factors used. - Any minimum mining widths used. - The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. - The infrastructure requirements of the selected mining methods.	tests for lithium extraction and electrolysis for conversion of LiCl to LHM have been taken into consideration in the Bridging study engineering design. - The mining method is dictated by the deposit type, in which brine is hosted in pore spaces between grains of sediments and within natural faults and fractures. Deep wells are installed to allow for production of lithium enriched geothermal brine from the reservoir fault and matrix systems to the wells utilizing a pumping system to overcome hydraulic head. The lithium depleted brine is then reinjected back to the reservoir through injection wells. - There is no open pit or underground excavation (because the brine is pumped out from wells) and no geotechnical parameters are directly measured. The future change of lithium concentration in wells will be monitored as part of the future monitoring and pumping activities. - No brine recharge has been factored into this study due to the nature of the deep brine resource and the historical data from over 10 years of active geothermal doublet operations. This will be monitored when new wells and production starts in the future for Phase One. - The mining recovery conversion from Resources to Reserves is typical of results for lithium brine operations, taking account of losses/recoveries through the recovery method and production plant. The lithium recovery estimated for the lithium extraction process design vary over the Project life as lithium concentrations vary but the average recovery is 93.9% of the produced lithium production. - Minimum mining widths are not relevant in the context of this Vulcan Group Project as there is no open pit mine. - Inferred and Indicated Resources are not considered for the purposes of the production plan and Reserves for the Lionheart Phase One district. - The infrastructure required for brine extraction is the establishment of the proposed well network, well sites, pipeline and power infrastructure, ORC plants, LEP surface facilities, and CLP surface facility.

Criteria	JORC Code Explanation	Commentary
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the Ore Reserve Estimation been based on the appropriate mineralogy to meet the specifications?	• The metallurgical process proposed is Adsorption-type Direct Lithium Extraction (A-DLE), using a sorbent-based extraction method, which is a proven technology for lithium extraction as used by several producers worldwide, including in Chile, Argentina and China. • The lithium chloride (LiCl) produced from the Lithium Extraction Plant (LEP) is then converted to battery grade lithium hydroxide monohydrate (LHM) at the Central Lithium Plant (CLP). The majority of the proposed equipment is in use in either lithium sorption Projects or in the chlor-alkali industry, although the specific sorbent used as a basis for this study, as well as the specific electrolysis technology, is not in commercial use at this time for the exact same processes using Upper Rhine Graben brines. These technologies are considered appropriate for the production of LHM based on current test work and the further test work planned to incorporate into the development plan and engineering design. • Vulcan Group has conducted thousands of hours of piloting test work with its pilot plant on the Upper Rhine Graben Brine, since April 2021. Substantial metallurgical test work was carried out with bulk brine samples at vendors, independent laboratories, and Vulcan Group's laboratory and is considered appropriate for indications of performance to support the Vulcan Group Project. Process parameter optimisation test work is planned at the pilots and the currently planned commissioning optimisation plants (LEOP and CLEOP), which will provide insights into the operations plan for the execution Phase. • Samples of the raw geothermal brine at the pilot plant in Insheim were sent for analysis by Inductively Couple Plasma-Optical Emission Spectroscopy (ICP-OES) and Ion Chromatography (IC) at the Vulcan Group laboratory in Durlach, on a frequent basis. With this data and other historical test data, it shows no significant variation in lithium grade. Similar findings were determined for Landau. • Testwork on the pre-treatment of brine was previously carried out by IBZ-SALZChemie, supervised by Vulcan Group's chemical engineering team. Further investigations have been conducted by Vulcan Group at its own laboratory based on samples from the pilot plant. Pre-treatment tested removal of silica, impurities, and CO₂. Vulcan Group has since conducted test work on a pressurised pilot, P1A, which

Criteria	JORC Code Explanation	Commentary
		has shown that pre-treatment will not be necessary prior to sorption. This design improvement was incorporated into the Bridging study engineering design. - Sorbent testing was conducted by Vulcan Group at the pilot plant and laboratory with a number of commercially available sorbents being tested. Vulcan Group has conducted substantial testing and optimisations to define a sorbent that will be best for their future operations. Vulcan Group has selected its own internally made sorbent, VULSORB®, as the most optimal for commercial use, after thousands of hours of test work and thousands of cycles of extraction. - NESI has conducted successful test work on the lithium electrolysis method using commercial scale cells. Vulcan Group has also conducted smaller scale test work with Electrosynthesis on conversion of LiCl to LHM using electrolysis. Optimisation work will continue at the Optimisation Plant for LHM conversion, designated CLEOP.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	- No waste rock characterisation studies are needed, due to the well-type of lithium brine extraction method proposed. - Consideration has been given to local environmental and social restrictions when planning the well sites, infrastructure, transportation and surface facilities. - Environmental assessments have been undertaken as applicable for various activities like drilling and are embedded as part of the permitting processes for Phase One. Vulcan Group is proactive in following the permitting process early and ensuring environmental protection requirements are considered in the Project design.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.	- The Project is in the Upper Rhine Graben, which is an area extremely well serviced by infrastructure for roads, rail, waterways, and power. - There is a large availability of highly skilled labour and accommodations throughout the development areas to support the Project development. - The decentralised Project structure results in special requirements for the transport logistics from the well sites to the LEP, from both raw material suppliers to the LEP and CLP as well as from the LEP to the CLP. Vulcan Group is planning to use an

Criteria	JORC Code Explanation	Commentary
		Interconnecting Pipeline & Power system (ICPP). There will be an ICPP in the Lionheart Project complex. The LiCl product from the LEP will be transported by regular road transport to the CLP.
Costs	- The derivation of, or assumptions made, regarding Projected capital costs in the study. - The methodology used to estimate operating costs. - Allowances made for the content of deleterious elements. - The source of exchange rates used in the study. - Derivation of transportation charges. - The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. - The allowances made for royalties payable, both Government and private.	- Vulcan Group has developed its cost estimate using a range of classification levels based on the maturity of each scope element at the end of Bridging Phase. Estimate inputs are based on Project definition and engineering & procurement maturity both internal to Vulcan Group and using qualified 3rd party external engineering contractors to determine detailed Material Take Off (MTO) quantities that have been priced also from service and supply vendors such as ORC Supplier, VEE and VER. - Vulcan Group has estimated the Owners capital costs. - Labour rates were established in accordance with labour agreement information and basic wage data obtained for other similar Projects in Germany/Europe. - Operating costs were estimated by Vulcan Group for most of the operational processes except the wells and ORC power plant, which have been defined by Vulcan Group and ORC Supplier. - Electricity prices and chemical prices correspond to expected costs for products delivered at the Project's location. - The process requires the removal of deleterious elements to specifications for the final high-quality product and has been considered in the estimation of costs. - A lithium market study was conducted by experienced industry analyst Fastmarkets at the end of 2023. As well trade statistics were collected and collated by Vulcan Group's in-house lithium marketing group. - All costs were estimated in Euros. - Prices for lithium hydroxide considered in the economic evaluation, correspond to CIF Europe prices, with all cost items necessary to transport produced lithium hydroxide to European markets included in the operations costs. These costs include

Criteria	JORC Code Explanation	Commentary
		trucking the lithium hydroxide to cathode plants, which are the expected destinations for this product. • Vulcan Group has 5 existing offtake contract agreements and has taken the pricing for these contracts into consideration in the economic analysis. • Since no lithium production currently exists in Germany, royalty rates, if any, will need to be discussed with the state Mining Authority, and have been provisionally set at zero, based on Section 32-2 of the German Mining Law, which allows for an exemption of royalties, given Vulcan Group would be “ensuring a supply of raw materials to the market, for improving the utilisation of deposits or for protecting any other national economic interests”. This is also consistent with the Project as a geothermal Project, which has also been made exempt from mining royalties on this basis. Mining royalties without this exemption would otherwise be up to 10%. Vulcan has applied for an exemption, and is awaiting feedback from the authorities.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• The head grade has been determined by the resource model which has been developed for the Vulcan Group Project and is based on regional drilling, geochemistry and seismic data, which was used to produce the Measured Mineral Resource Estimate for Phase One. • Commodity prices are based on forward estimates by experienced industry consultants Fastmarkets and offtake agreement pricing. • All costs were estimated in Euros. For lithium pricing, a Euro-USD conversion rate has been used in calculations. • Transportation costs are included in the estimation of operating costs. The operating costs include all aspects of the process from brine production from the wells, the ORC plants, the LEPs, and the CLP, plus transportation between the sites. • No allowances for by-product credits, except for HCl, NaCl, and district heating are considered. • Renewable energy produced by the geothermal plants is assumed to be sold into the grid at a fixed feed in tariff rate in accordance with the German Renewable Energy

Criteria	JORC Code Explanation	Commentary
		Law. It is assumed that the Vulcan Group operations will sell the geothermal renewable power produced and have to acquire renewable power from the grid. The power pricing is assumed based on Aurora Energy Research power price forecast where prices do not exceed the feed in tariff.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• The Company is well placed to benefit from the market window caused by the significant increase in demand related to electric vehicle uptake in Europe. • Vulcan Group contracted Fastmarkets to conduct a lithium supply study which included supply, demand, and pricing outlooks. Fastmarkets concluded that Vulcan Group is strategically well positioned to benefit from the increasing demand for lithium in Europe. A-DLE production in conjunction with geothermal energy is a solution that makes sound economic and environmental sense. • Some weaknesses and threats were identified by Fastmarkets for the lithium market, but none were specific to Vulcan Group's Project, and they are more than offset by the strengths and opportunities that the Project's strategy offers. • The Company is well placed on the cost curve, and plans to produce a final battery grade product, unlike many hard rock competitor companies. The Project is forecast to fall in the lower part of the cost curve, being competitive with other existing and forecasted new lithium Projects. • The economic model takes into consideration the pricing mechanisms concluded by Vulcan Group with its offtakers, which is specific to each agreement. • The pricing model used in the economics also combined the Fastmarkets analysis with the offtake agreement pricing. Vulcan Group holds 5 offtake agreements with Umicore, Renault, Stellantis, Volkswagen, and LG Energy Solution. • The Project is expected to produce battery quality lithium hydroxide monohydrate (LHM), to the specifications of European cathode manufacturers.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and	• Vulcan Group conducted an economic analysis using its own financial model for this Competent Person Report.

Criteria	JORC Code Explanation	Commentary
	confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs.	- Mining industry practitioners typically undertake financial modelling using real NPV terms, Projecting constant costs and metal prices in real terms. The resultant cash flows are then discounted by a real risk-adjusted discount rate. Vulcan Group conformed with this practice. - A discount rate of 8% was applied to the cashflow in line with the industry average for lithium assets. - Sensitivity analyses were conducted to evaluate the LHM prices, exchange rates, OPEX, and CAPEX. The Project is generally resilient to most major factors and is most sensitive to lithium pricing. - The economic evaluation was based on the brine flow rates from the production forecast which include dilution of lithium concentrations over time.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	- Vulcan Group's Communications team has commenced engagement and consultation at local, state and federal levels. They have an extensive communications strategy utilizing multiple communication tools such as social media, open houses, mailings, call centre, etc. - Vulcan Group is in advanced stages of negotiating a heat offtake agreement to supply renewable heat to the local community in the City of Landau area. - Vulcan Group has installed information centres on the Insheim site, in Landau, Durlach and Mannheim.
Other	- To the extent relevant, the impact of the following on the Project and/or on the estimation and classification of the Ore Reserves: - Any identified material naturally occurring risks. - The status of material legal agreements and marketing arrangements.	- A number of risk factors has been identified, related to the natural environment and other aspects of the Project. The natural risks identified are considered to be manageable, assisted by the extensive experience of the Vulcan Group team in historical development of geothermal Projects in the Upper Rhine Graben. - Material legal agreements are understood to be in good standing. The properties are granted exploration licences and production licences at Insheim. Vulcan Group holds the rights to geothermal energy, brine and lithium in the Phase One areas either directly or through third party brine offtake agreements.

Criteria	JORC Code Explanation	Commentary
	The status of governmental agreements and approvals critical to the viability of the Project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the Reserve is contingent	- Vulcan Group has signed onto 5 offtake agreements for LHM product sales. - Preliminary EIAs have been approved, negating the need for full EIAs, for some well sites in the Phase One area. Permit applications for production/re-injection well sites have been approved or are in process awaiting approvals. The permit applications for facility construction and operation are in process. - Whilst there can be no assurance that Vulcan Group will obtain all the permits it needs on time or at all, no reason is known of by the Company to expect delays to permit approvals based on the consultation that Vulcan Group has conducted with the regulatory agencies, local communities, and other stakeholders. There are therefore reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in this report. This is further bolstered by the imperative from the German Federal and State governments for decarbonisation of energy, and from the European Union for onshoring of sustainable critical raw materials production, in particular lithium as announced as part of the EU Green Deal Industrial Plan.
Classification	- The basis for the classification of the Ore Reserves into varying confidence categories. - Whether the result appropriately reflects the Competent Person's view of the deposit. - The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	- The Ore Reserves CP is of the opinion that Vulcan Group has conducted sufficient geologic, reservoir engineering work, and mineral processing test work to provide a high level of certainty for the modifying factors so that for Lionheart, Ore Reserves are estimated for Proved and Probable classifications. With Lionheart having existing brine production from the Insheim and Landau wells, and the pilot tests conducted at Insheim and Landau, there is historical data available to show consistency with the lithium concentration used for the Ore Reserves of 181 mg/l Li. - The Ore Reserves estimates are taken from the Reference Point of the wellhead or inlet to the LEP. - The Ore Reserves estimate for Lionheart is Proved at 318 kt LCE, and Probable at 252 kt LCE. The Ore Reserves for Lionheart are derived from the Measured Mineral Resource mass estimated per Section 3 of this JORC Table 1 of 2112 kt LCE. This includes the licences in Insheim, Rift Nord and Landau Sued. - Ore Reserve estimate has been prepared by a multi-disciplinary team that include geologists, reservoir engineers, hydrogeologists, geothermal specialists, chemical

Criteria	JORC Code Explanation	Commentary
		and process engineers with relevant experience in geothermal lithium brine Projects. There is collective agreement that the Project has reasonable prospects for economic extraction at current and forecast lithium market pricing levels. Technical Report author Kim Mohler, P.Eng. takes responsibility for this statement, as Ore Reserves CP.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserves have been independently reviewed by GLJ Ltd., who provided the Competent Person sign-off of production forecasts and Ore Reserves estimates.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of	- The Proved and Probable Ore Reserve Estimations reported for this report are considered to have a reasonable level of confidence based on the quality of data and test work collected. These data were interpreted by a technical team with local and international experience and expertise. This team also defined the field development plan and process engineering design. This level of confidence is further supported by the continuity of mineralisation, the reservoir characterisation, and the demonstration that lithium enriched brine can be pumped from deep wells in the Upper Rhine Graben and that lithium can be economically recovered and converted to battery grade LHM. - Modifying factors include, but are not limited to, well design, well placement, production/injection plan, geothermal production, mineral processing, metallurgical testing, infrastructure design, surface facility design, marketing plan, economic analysis, legal, environmental, social, and government factors. - The pilot tests have provided sufficient test work results that the CP has a high level of confidence in the Bridging Study engineering design and expected results for the Project. - The permitting of the Project by the government, which requires relevant environmental approvals depending on each location and site use, is a modifying factor. It is considered as a potential risk to the schedule, but based on information from the Company, the CPs have reason to believe that there is a reasonable probability for full approvals to meet the schedule start date. - The CP's have relied on data provided by Vulcan Group and supporting third parties. The accuracy of any Mineral Resources or Ore Reserves estimate is a function of the

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	the estimate should be compared with production data, where available.	quality and quantity of available data and of geologic and engineering interpretation and judgment. While Mineral Resources and Ore Reserves and production estimates presented herein are considered reasonable, the estimates should be accepted with the understanding that reservoir performance subsequent to the date of the estimate may justify revision, either upward or downward. • The metallurgical basis for the process engineering design and the design parameters and related costs, were relied upon by the CP as provided by Vulcan Group and third-party contractors. As the Project moves to the execution Phase, there is potential for optimisation, therefore it is possible that design specifications described in this report will be subject to change and the costs related to these changes will affect the reported economic results. • Revenue Projections presented in this report are based in part on forecasts of market prices, currency exchange rates, inflation, market demand and government policy which are subject to many uncertainties and may, in future, differ materially from the forecasts utilised herein. Present values of revenues documented in this report do not necessarily represent the fair market value of the reserves evaluated herein.

6 ABBREVIATIONS

Abbreviation/Term	Definition
2D seismic	Two-Dimensional Seismic Geophysical Data
3D seismic	Three-Dimensional Seismic Geophysical Data
A-DLE	Adsorption-type Direct Lithium Extraction
a.s.l.	Above Sea Level
AACE	Association for the Advancement of Cost Engineering
ABBergV	Allgemeine Bundesbergbauverordnung (General Federal Mining Ordinance)
aBG	Allgemeine Bauartgenehmigung (General Type Approval)
ABP	Abschlussbetriebsplan (Closing Operating Plan)
abZ	Allgemeine bauaufsichtliche Zulassung (General Technical Approval)
AFE	Authorisation for Expenditure
AGFW	Energieeffizienzverband für Wärme, Kälte und KWK (Energy Efficiency Association for Heating, Refrigeration and CHP)
AM	Arithmetic Mean
AOI	Area of Interest
APEGA	Association of Professional Engineers and Geoscientists of Alberta
ArbStättV	Arbeitsstättenverordnung (Occupational Health and Safety Act)
ASR	Technische Regeln für Arbeitsstätten (Technical Rules for Workplaces)
ASVG	Agrarstrukturverbesserungsgesetz (Agricultural Structure Improvement Act)
ASX	Australian Securities Exchange
Av K Hi Core	Average Permeability
Avg LC	Average Concentration of Lithium in the Brine
Avg NTG	Average Net-to-Gross Ratio
Avg PHIE	Average Effective Porosity
AVO	Amplitude Versus Offset

Abbreviation/Term	Definition
AwSV	Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on Facilities for Handling Substances Hazardous to Water)
BA	Construction Segment (Bauabschnitt)
BArtSchV	Bundesartenschutzverordnung (Federal Species Protection Regulation)
BauGB	Baugesetzbuch (Building Code)
BauNVO	Baunutzungsverordnung (Building Use Ordinance)
BBergG	Bundesberggesetz (Federal Mining Act)
BBodSchG	Bundes-Bodenschutzgesetz (Federal Soil Protection Act)
Bridging Study	Bridging Engineering Study
BetrSichV	Verordnung über Sicherheit und Gesundheitsschutz (Ordinance on Safety and Health Protection)
BFD	Block Flow Diagram
BGB	Bürgerliches Gesetzbuch (Civil Code)
BHA	Bottom Hole Assembly
BHT	Bottom Hole Temperature
BImSchG	Bundesimmissionsschutzgesetz (Federal Immission Control Act)
BImSchV	Bundesimmissionsschutzverordnung (Federal Immission Control Directive)
BKompV	Bundeskompensationsverordnung (Federal Compensation Regulation)
BM	Basement
BNatSchG	Bundesnaturschutzgesetz (Federal Nature Conservation Act)
BNS	Bunte Niederrödener Schichten
BoP	Balance of Plant
BOP	Blow Out Preventer
BPCS	Basic Process Control System
BST	Bundsandstein Formation
BV	Bed Volumes

Abbreviation/Term	Definition
BVEG	Bundesverband Erdgas, Erdöl und Geoenergie (German Federal Association for Natural Gas, Petroleum and Geoenergy)
BW	Baden Wuerttemberg
BWG	Geochemische Beratung GmbH
CAD	Canadian Dollar
CALA	Canadian Association for Laboratory Accreditation Inc.
CAPEX	Capital Expenditures
CBS	Cost Breakdown Structure
CCTV	Closed-Circuit Television
CCR	Central Control Room
CFC	Chlorofluorocarbons
CIF	Cost, Insurance and Freight
CIG	Cogognes
CJK	China Japan Korea
CLEOP	Central Lithium Electrolysis Optimisation Plant
CLP	Central Lithium Plant
CO₂	Carbon Dioxide
COCA	Common Offset and Common Angle
Company	Vulcan Energy Resources Limited
CP	Competent Person
CRS	Coordinate Reference System
DCS	Digital Control System
DD	Directional Drilling
DEN	Density Log
DEW	Deutsche ErdWärme
DFN	Discrete Fracture Network
DFS	Definitive Feasibility Study
DIF	Drilling-induced Fractures

Abbreviation/Term	Definition
DLE	Direct Lithium Extraction
DLS	Direct Lithium Sorption
DMZ	Demilitarised Zone
DN	Nominal Diameter
DOW	Division of Work
DST	Drill Stem Test
DTc	Compressional Sonic
DTs	Shear Sonic
DVGW	Deutscher Verein des Gas- und Wasserfaches (German Association of the Gas and Water Industry)
DWA	Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall (German Association for Water, Wastewater, and Waste)
e.g.	exempli gratia
EC	Electrical Conductivity
ECA	Export Credit Agencies
ECRIS	European Cenozoic Rift System
EEG	Erneuerbare-Energien-Gesetz (German Renewable Energies Act)
EEWärmeG	Erneuerbare-Energien-Wärmegesetz (German Renewable Energies Heat Act)
EIA	Environmental Impact Assessment
EMW	Equivalent Mud Weight
EnEG	Energieeinsparungsgesetz (Energy Saving Act)
EnEV	Energieeinsparverordnung (Energy Saving Ordinance)
ERM	Enterprise Risk Management
EPC	Engineering Procurement & Construction
EPCm	Engineering Procurement & Construction management
ESG	Environment, Social and Governance
ESIA	Environmental and Social Impact Assessment
ESP	Electrical Submersible Pump

Abbreviation/Term	Definition
ETA	European Technical Assessment
Etc	Et cetera
EU	European Union
EUR	Euro currency
EV	Electric Vehicle
EVS	Emergency Vent Scrubber
EWA1	Early Works Agreement Nr.1
EWS	Engineering Workstations
FDP	Field Development plan
FDZ	Fault Damage Zone
FEL	Front-End Loading
FFG	Formation Fracture Gradient
FFH	European Fauna-Flora-Habitat Directive
FIS Geophysik	Fachinformationssystem Geophysik (Geophysics Information System)
FIT	Formation Integrity Tests
FLA	Flaggenturm
FLiT	Total Lithium Production
FMI	Image Log
FPG	Pressure Gradient
FUC	Fuchsmantel
FX	Exchange Rate
GBP	Great British Pound
GC	Gas Chromatography
GCP	Grid Connection Point
GDRM	Gas-Druckregel- und Messanlage (Gas pressure regulating and metering station)
GEG	Gebäudeenergiegesetz (Building Energy Act)
GEO	Geothermal Processes

Abbreviation/Term	Definition
GHG	Greenhouse Gas
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GLEP	Geothermal Lithium Extraction Plant
GLR	Gas to Liquid Ratio
GM	Geometric Mean
GPR	Glass-Reinforced Plastics
GR	Gamma Ray
GrdstVG	Grundstückverkehrsgesetz (Real Estate Transactions Act)
GRV	Gross Rock Volume
GTT	GlobalTradeTracker
GWP	Global Warming Potential
HAZOP	Hazard and Operability
HBP	Hauptbetriebsplan (Main Operating Plan)
HCl	Hydrochloric Acid
HDV	Heavy-Duty Vehicles
HMI	Human-Machine Interfaces
HPS	High Purity Standards
HPS	High Purity Standards
HRM	Host Rock Matrix
HSE	Health, Safety, Environmental
HT	High Temperature
HTLP	High Temperature Low Pressure
HV	High Voltage
HVAC	Heating, Ventilation and Air Conditioning
i.e.	id est
IATA	International Air Transport Association
IBC	Intermediate Bulk Container

Abbreviation/Term	Definition
IC&E	Instrumentation, Controls and Electrical
ICE	Internal Combustion Engine Vehicle
ICP-MS	Inductively Coupled Plasma Mass Spectrometry
ICP-OES	Inductively Coupled Plasma Optical Emission Spectroscopy
ICPP	Interconnecting Pipeline & Power
ICT	Information and Communication Technologies
IDS	Intrusion Detection System
IE-RL	Industrial Emissions Directive
IfBT	Institut für Fassaden- und Befestigungstechnik (Institute for Facade and Fastening Technology)
IFC	International Finance Corporation
ILT	Injection Logging Tests
IMDG	International Maritime Dangerous Goods Code
IMO	International Maritime Organisation
IndBauRL	Industriebaurichtlinie (Industrial Building Directive)
INS	Insheim
IP	Interactive Petrophysics
IPPC	International Plant Protection Convention
IPR	Inflow Performance Relationship
IRR	Internal Rate of Return
ISBL	Inside Battery Limits
IT	Information Technology
IW	Industrial Water
IWC	Industrial Water Cycle
IX	Ion Exchange
JGTI	Junction Insheim
JHA	Junction Hasenberg
JLA	Junction Landau

Abbreviation/Term	Definition
JSC	Junction Schleidberg
JSP	Junction Spreissgraben
JTR	Junction Trappelberg
JV	Joint Venture
JVM	Junction 40Morgen
KEO	Kerner Ost
KER	Kerner
KIT	Karlsruhe Institute of Technology
KOP	Kick-Off Points
Kv	Vertical Permeability
L/D	Length/Diameter
lag	Conglomeratic Channel
LAM	Lampertheim
LAN	Landau Sued
LBauO	Landesbauordnung (Building and Zoning Code)
LBP	Landschaftspflegereischer Begleitplan (Landscape Management Plan)
LCE	Lithium Carbonate Equivalent
LCM	Lost Circulation Material
LCP	Local Control Panel
LEO	Löwenherz
LEOP	Lithium Extraction Optimisation Plant
LEP	Lithium Extraction Plant
LFP	Lithium Iron Phosphate
LFT	Lithofacies Types
LGB	Landesamt für Geologie und Bergbau (State Office for Geology and Mining)
LGES	LG Energy Solution
LGTI	Insheim Well Site

Abbreviation/Term	Definition
LHA	Hasenberg Well Site
LHM	Lithium Hydroxide (Monohydrate)
Li	Lithium
Li₂CO₃	Lithium Carbonate
LIAG	Leibniz-Institute for Applied Geophysics
LiCl	Lithium Chloride
LIIP	Lithium-Initially-In-Place
LIMS	Laboratory Information Management System
LIO	Lionheart
LIOPS	Lionheart Project Space
Litholog	Lithology Log
LLA	Landau Well Site
LOPA	Layers of Protection Analysis
LOT	Leak Off Tests
LP	Low Pressure
LSC	Schleiberg Well Site
LSP	Spreissgraben Well Site
LSP	Line Shaft Pump
LT	Low Temperature
LTR	Trappelberg Well Site
LTranspG	Landestransparenzgesetz (Rhineland Palatinate Transparency Act)
LUD	Ludwig
LVM	40Morgen Well Site
LWD	Logging While Drilling
LWEntG	Wasserentnahmeentgeltgesetz (Water Withdrawal Charges Act)
LWG	Water Act Landeswassergesetz
M	Million
M&E	Mass & Energy

Abbreviation/Term	Definition
MAC	Main Automation Contractor
MAN	Mannheim
MBO	Musterbauordnung (Standard Building Code)
MD	Measured Depth
MDT	Modular Formation Dynamics Tester
MEC	Main Electrical Contractor
MES	Manufacturing Execution System
MK	Muschelkalk
MOP	Method of Procedure
MOPS	Mobile Device for In-Situ Measurements of Specific Heat Capacity and Kinematic Viscosity
MSA	Master Services Agreement
MSB	Mixed Strip Brine
MTO	Material Take-Off
MV	Medium Voltage
MVR	Mechanical Vapor Recompression
MWD	Measurement While Drilling
N	North
N/G	Net To Gross Ratio
NBRG	Near Bit Gamma Ray
NCM	Nickel Cobalt Manganese
NDA	Non-Disclosure Agreement
NE	North-East
NEU	Neutron log
NI	National Instrument
NORM	Naturally Occurring Radioactive Material
NPHI	Neutron
NPT	Non-Productive Time

Abbreviation/Term	Definition
NPV	Net Present Value
NTG	Net-to-Gross Ratio
NW	North-West
O&G	Oil & Gas
OBG	Overburden Pressure Gradient
OBM	Oil-Based Mud
OBS	Organisation Breakdown Structure
OCM	Committee Meeting
OPEX	Operational Expenditures
ORC	Organic Rankine Cycle
ORT	Ortenau
ORT II	Ortenau II
OT	Operation Technology
OWS	Operator Workstations
P-EIA	Preliminary Environmental Assessment
P&ID	Piping & Instrumentation Diagram
PCS	Process Control Systems
Perm	Permeability
PFD	Process Flow Diagram
PFS	Pre-Feasibility Study
Phase One	The First Phase of production for the Project
PHIE	Effective Porosity
PHIET	Total Porosity
PI/II	Productivity/Injectivity Indices
PIMS	Production Information Management System
PMS	Power Management System
Poro	Porosity
PostSTM	Post-Stack Time Migrations

Abbreviation/Term	Definition
P1a	Pilot Lithium Extraction Plant at Insheim Operating under Pressure
PPA	Power Purchase Agreement
PPV	Peak Particle Velocity
PRA	Price Reporting Agency
Prelims	Preliminary Cost
PreSDM	Pre-Stack Depth Migration
PreSTM	Pre-Stack Time Migration
Project	Vulcan's Phase One Lionheart Project
PSDM	Post Stack Depth Migration
PSTM	Post Stack Time Migration
PTA	Pressure Transient Analysis
PV	Photovoltaic
PVT	Pressure Volume Temperature
PW	Pfalzwerke
QA	Quality Assurance
QC	Quality Control
QCRA	Quantitative Assessment
QRA	Quantitative Risk Analysis
R&D	Research & Development
RBM	Risk-Based Maintenance
RBP	Rahmenbetriebsplan (General Operating Plan)
RBS	Risk Breakdown Structure
RCX	Reservoir Characterisation eXplorer
RED	Renewable Energy Directive
Res	Resistivity Log
RFP	Request for Proposal
RHOB	Raw Density
RIF	Rift Nord

Abbreviation/Term	Definition
RL	Rotliegend
RLP	Rhineland Palatinate
RMO	Residual Moveout
RMS	Route-Mean Square
RO	Reverse Osmosis
ROG	Raumordnungsgesetz (Spatial Planning Act)
RohrFltgV	Verordnung über Rohrfernleitungsanlagen (Long-Distance Pipeline Ordinance)
ROP	Rate of Penetration
Röt	Upper Buntsandstein
RSD	Relative Standard Deviation
RStO	Richtlinien für die Standardisierung des Oberbaus von Verkehrsflächen (Guideline for the Standardisation of the Superstructure of Traffic Areas)
S	South
SA	Sensitivity Analysis
saP	Spezielle artenschutzrechtliche Prüfung (Species Conservation Evaluation)
SBC	Sustainable Business Consultants
SBP	Sonderbetriebsplan (Special Operating Plan)
SCC	Standards Council of Canada
SE	South-East
SEGY	Society of Geophysicists Y Format
SG	Specific Gravity
SGD	Struktur- und Genehmigungsdirektion Süd (Structural and Approval Directorate South)
SGR	Shale Gauge Ration
SIS	Safety Integrated System
SLD	Single Line Diagram

Abbreviation/Term	Definition
SLV	Standard Land Value
Sonic	Acoustic Sonic Log
SoP	Start of Production
SoW	Scope of Work
Sp	Siltstone
SP	Spontaneous Potential
SPP	Spatial Planning Plans
SPV	Special Purpose Vehicle
SRD	Seismic Reference Datum
SRT	Step Rate Test
STP	Standard Temperature and Pressure
StrlSchV	Strahlenschutzverordnung (Radiation Protection Ordinance)
StVZO	Straßenverkehrs-Zulassungsordnung (Road Traffic Licensing Regulations)
SW	South-West
SWC	Side Wall Coring
TA	Technische Anleitung (Technical Instruction)
TAR	Taro
TCM	Technical Committee Meetings
TD	Total Depth
TDS	Total Dissolved Solids
TFRL	Technische Regel für Rohrfernleitungsanlagen (Technical Rule for Pipeline Facilities)
THE	Therese
THMC	Thermal Hydraulic Mechanical Chemical
TRbF	Technische Regeln für brennbare Flüssigkeiten (Technical Rules for Flammable Liquids)
TRBS	Technische Regeln für Betriebssicherheit (Technical Rules for Operational Safety)

Abbreviation/Term	Definition
TRGS	Technische Regeln für Gefahrenstoffe (Technical Rules for Hazardous Substances)
TVD	Total Vertical Depth
TVDSS	Total Vertical Depth below Sea Level
UBB	Umweltbaubegleitung (Environmental Construction Supervision)
UHPRO	Ultra-High-Pressure Reverse Osmosis
Uni HD	Heidelberg University
URG	Upper Rhine Graben
URGBF	Upper Rhine Graben Brine Field
US\$	US-Dollar
USA	United States of America
USD	US-Dollar
UVPg	Gesetz über die Umweltverträglichkeitsprüfung (Environmental Impact Assessment Act)
UVV	Unfallverhütungsvorschriften (Accident Prevention Regulations)
VbF	Verordnung über brennbare Flüssigkeiten (Ordinance on Flammable Liquids)
Vcl	Volume of clay
VDE	Verband der Elektrotechnik Elektronik Informationstechnik (German Electrical Engineering Association)
VDI	Verein Deutscher Ingenieure (Association of German Engineers)
VEE	Vulcan Energy Engineering GmbH
VESS	Vulcan Energy Subsurface Solutions GmbH
VFP	Vertical Flow Performance
VGB	Technische Vereinigung der Großkraftwerksbetreiber (Technical Association of Large Power Plant Operators)
VM	Virtual Machines
VNI	Insheim
VOB	Vergabe- und Vertragsordnung für Bauleistungen (Regulations on the Award of Contracts and Contracts for Construction Work)

Abbreviation/Term	Definition
VoIP	Voice Over IP
VSP	Vertical Seismic Profiling
Vulcan Energie	Vulcan Energie Ressourcen GmbH
Vulcan Group	Vulcan Energy Resources Limited and its subsidiaries
VULSORB®	Vulcan's internally produced sorbent
VwVerfG	Verwaltungsverfahrensgesetz (Administrative Procedure Act)
W	West
WACC	Weighted Average Cost of Capital
WBM	Water-Based Mud
WBS	Work Breakdown Structure
WHG	Wasserhaushaltsgesetz (Water Resources Act)
WHP	Wellhead Pressure
WK	Worth-Karlsruhe
WL	Wireline Logging
WPG	Heat Planning Act (Wärmeplanungsgesetz)
XRD	X-Ray Diffraction

7 ABBREVIATIONS OF SI UNITS

Abbreviation	Definition
%	Percent
°C	Degree Celsius
\$	US Dollar
A\$	Australian Dollar
\$M	Million US Dollars
€	Euro
€M	Million Euros
a	Annum
barg	Bar Gauge
BV/h	Bed Volume per Hour
cm	Centimetre
cm ²	Square Centimetre
cm ³	Cubic Centimetre
cP	Centipoise
d	Day
ft	Foot
g	Gram
GW	Gigawatt
GWh	Gigawatt Hour
h	Hour
Hz	Hertz
K	Kelvin
Ka	Kilo annum
kg	Kilogram
kJ	Kilojoule
km	Kilometre
km ²	Square Kilometre
km ³	Cubic Kilometre
kNm	Kilonewton-metre
kt	Kilotonne
ktpa	Kilotonnes per year
kV	Kilovolt

Abbreviation	Definition
kW	Kilowatt
kWh	Kilowatt Hour
l	Litre
lbs	Pounds
m	Metre
m²	Square Metre
m³	Cubic Metre
Ma	Mega annum
mD	Millidarcy
mg	Milligram
ml	Millilitre
mm	Millimetre
mS	Millisiemens
Mt	Megatonne
MVA	Megavolt-Ampere
MW	Megawatt
MW_{el}	Megawatt electric
MWh	Megawatt Hour
MW_{th}	Megawatt thermic
mΩ	Milliohms
ppb	Parts per Billion
ppm	Parts per Million
psi	Pounds per Square Inch
s	Second
sg	Specific Gravity
sm³	Standard Cubic Metre
t	Tonne
tCO_{2e}	Tonnes of CO ₂ Equivalent
tpa	Tonnes per annum
USD\$	US Dollar
wt %	Weight Percent
μm	Micrometre

8 REFERENCES

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