

sunrise
energy metals

Annual General Meeting

October 2024



Cautionary statement



Certain statements in this news release constitute “forward-looking statements” or “forward-looking information” within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of the Company or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as “may”, “would”, “could”, “will”, “intend”, “expect”, “believe”, “plan”, “anticipate”, “estimate”, “scheduled”, “forecast”, “predict” and other similar terminology, or state that certain actions, events or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved. These statements reflect the Company’s current expectations regarding future events, performance and results, and speak only as of the date of this release.

Readers are cautioned that actual results may vary from those presented.

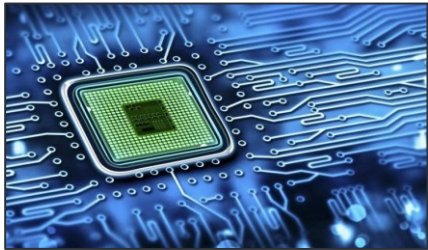
All such forward-looking information and statements are based on certain assumptions and analyses made by Sunrise Energy Metals’ representatives in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors the Company believes are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; changes in commodity prices; delays in financing or project funding; unexpected failure or inadequacy of infrastructure, or delays in the development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. Readers are cautioned not to place undue reliance on forward-looking information or statements.

Although the forward-looking statements contained in this news release are based upon what the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this release and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this release.



Sunrise Nickel-Cobalt Project

A large, long-life, low-cost and development-ready asset targeting growth in global automotive electrification technologies



Syerston Scandium Project

A low-capex, high-value, stand-alone mine/refinery targeting scandium adoption in 5G/6G telecoms chips, civilian and military alloys and micro-electro-mechanical-systems (MEMS)



Exploration portfolio

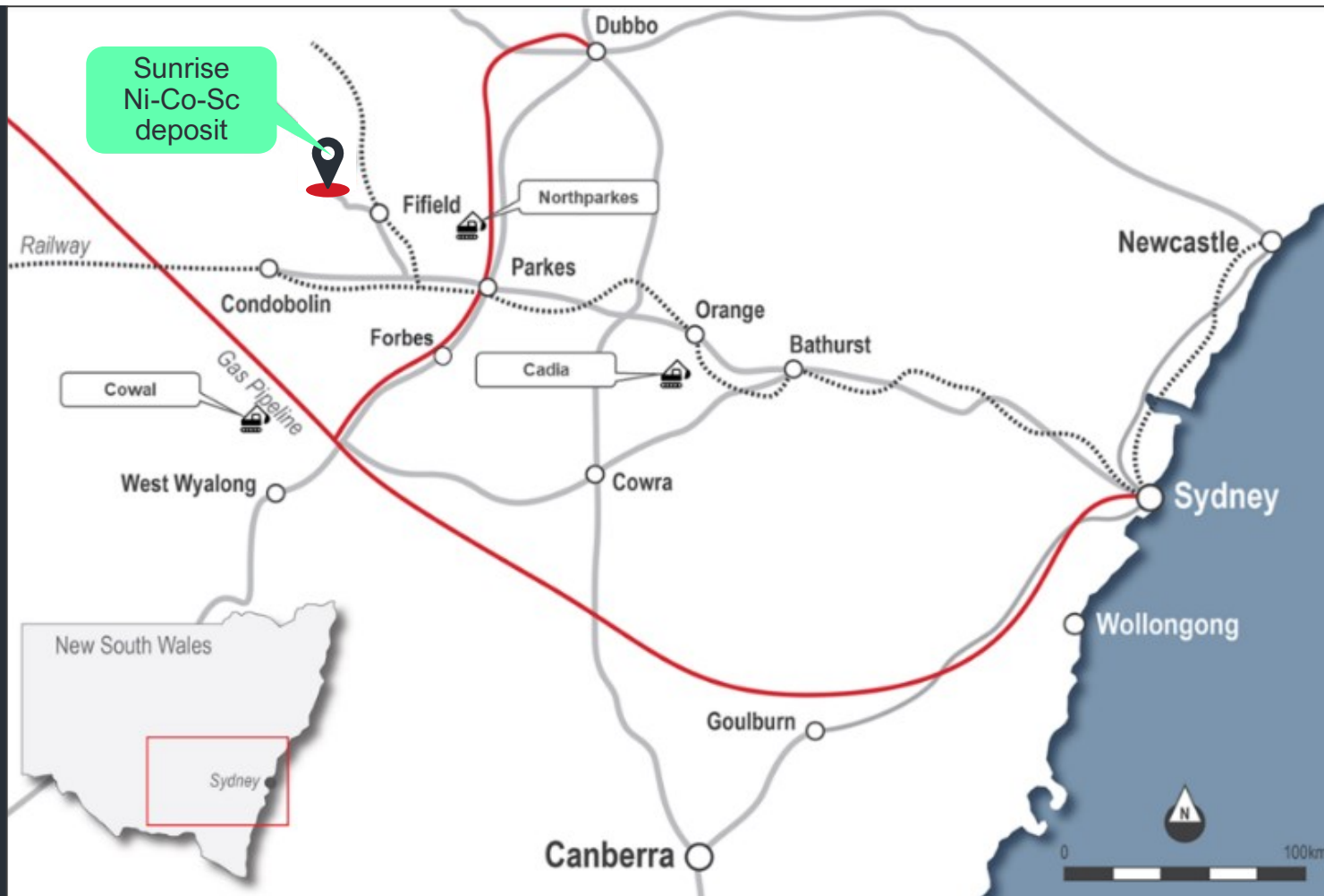
Over 3,400km² of exploration and mining rights in the Lachlan Fold Belt (NSW), and earn-in rights on some of the most prospective mineralised districts in the Cloncurry region (Qld)



Sunrise Nickel-Cobalt Project

Project summary

- **Value.** A large, low-cost, permitted nickel-cobalt development in a safe jurisdiction
- **Opportunity.** Strategic value evident as tensions in US-China relations increase: major Inflation Reduction Act credits
- **Market.** Ni/Co oversupplied due to a flood of new Chinese capacity from Indonesia – has impacted partnering and financing discussions
- **Strategy.** Minimize holding costs and preserve options until market conditions improve



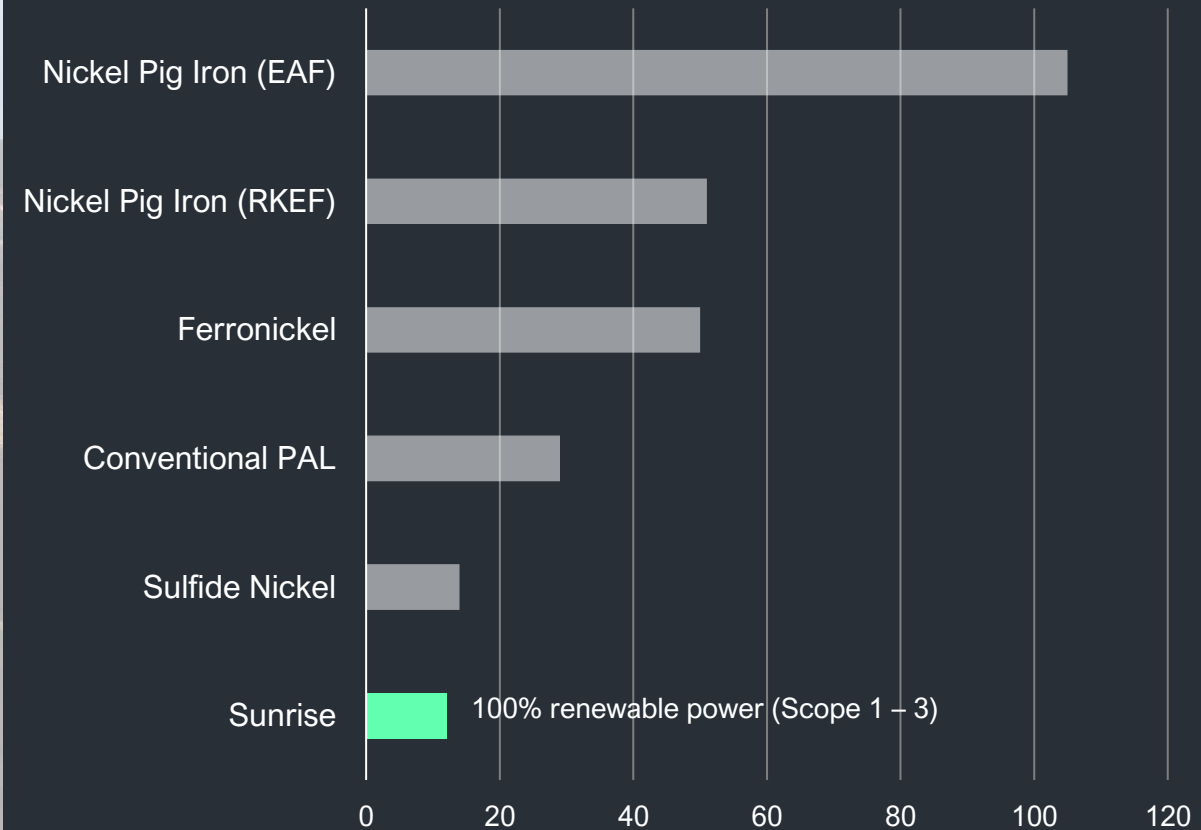
Refer to ASX Release of 28 September 2020 for more details.

Sustainability in design

- Key design features of the Sunrise Project include:
 - 100% renewable power for mine and processing plant
 - Use of co-gen to reduce electricity demand
 - Water re-use from on-site water treatment facilitates
 - Managing HSEC obligations to international best practice, including ANCOLD standards for waste management
 - Option to by-pass crystallisation with on-site pCAM and capacity to recycle for a fully circular supply chain

Deforestation and pollution from nickel mining in SE Asia

Carbon intensity of nickel production
(kg CO₂/Kg Nickel in sulphate)



Source: Energetics, Life Cycle Assessment Report: greenhouse gas emission comparison for nickel production routes (Feb 2020). The GHG emission intensities of alternative processing routes are based on literature data that cannot be effectively harmonized. For comparison purposes the only harmonization that has occurred has been on end product (NiSO₄) and using economic allocation to end products. Comparisons against Sunrise should be considered indicative. See also Nickel Institute, Life Cycle Data Assessment. Energy consumption for conventional PAL, ferronickel and NPI products assumes Indonesian development utilizing coal as primary power source. Sulfide nickel data varies between 9 and 19 kg CO₂e depending on power source.



- Recent work has focused on pre-construction activities:
 - Installation and pump testing of water bores completed
 - Design and engineering for electrical connection delivered
 - Engineering for oversize transport route completed
 - Periodic monitoring and reporting of environmental data
- The project comprises significant real assets:
 - 2 x HPAL autoclaves (3mtpa capacity) – c. A\$45m market value
 - 50km² of freehold land surrounding the project site
 - High security water rights
 - 3,430km² of exploration and mining rights in the Lachlan Fold Belt
- The focus going forward is to preserve option value at minimal cost while engagement with government and industry continues



Syerston Scandium Project

Syerston Scandium Project - Updated Feasibility Study



GR Engineering Services is appointed to update the cost basis from the 2016 Syerston Scandium Project Feasibility Study¹



The current scope assumes a stand-alone mine and processing plant to produce scandium-containing materials



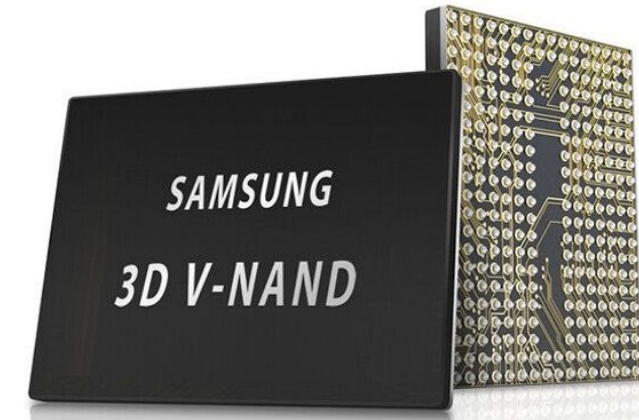
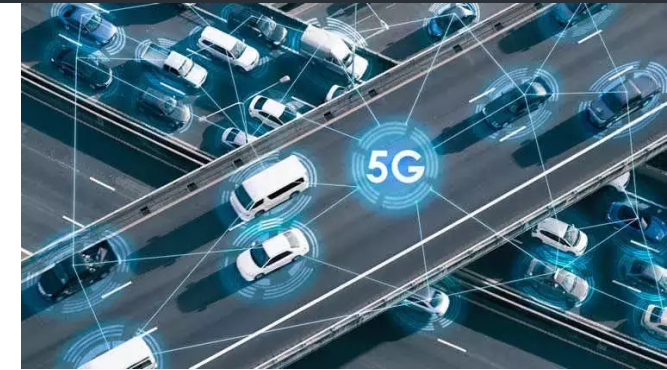
Optimization work is underway to assess different development pathways, including refining options to both chemicals and metal



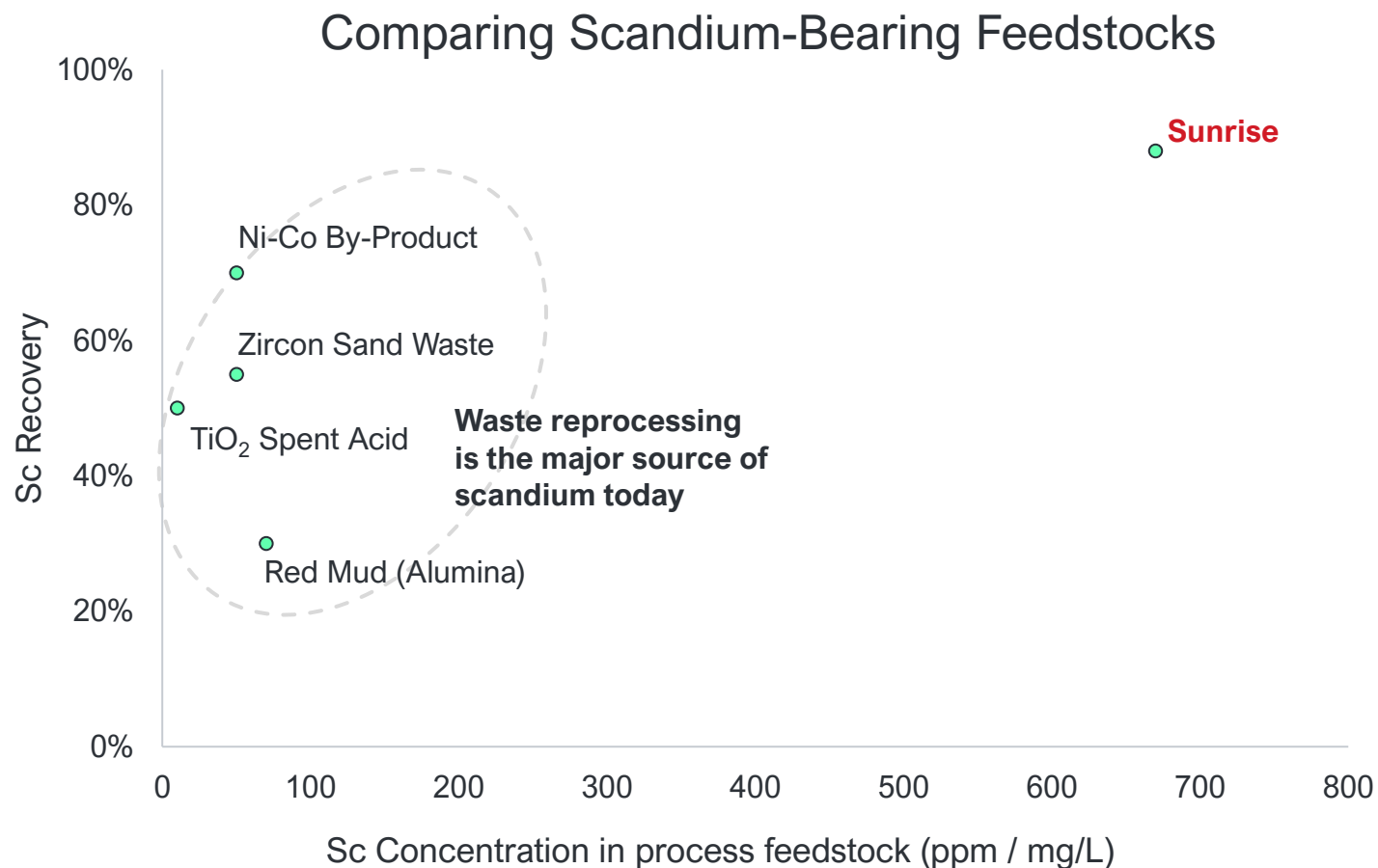
Supply discussions have commenced with several parties across the specialty alloy, semiconductor and aerospace supply chains



Several new applications have emerged for scandium over the past decade, warranting a reassessment of market potential



1. Refer to ASX Release of 9 July 2024 for more details.



- A large part of the world's scandium comes from reprocessing acidic TiO₂ waste in China, where there are significant environmental legacies with waste disposal
- Scandium is not geologically scarce, and China has latent capacity; hence, a stand-alone mine will only succeed if high feed grades can compensate for mining and leaching costs
- The benefit of mining, however, is that it is more readily scalable



HIGH-PERFORMANCE ALLOYS

Potentially the largest use case in automotive, marine and aerospace applications, although adoption to date is limited.

The effects of scandium on aluminium strength, extrudability, corrosion-resistance and weldability are well documented.

Customers need evidence of diverse and scalable supply chains before committing to new applications.



SEMICONDUCTORS / MICROELECTRONICS

A relatively new market, but highly strategic in terms of 5G/6G comms technologies.

Scandium-doped RF filters provide enhanced piezoelectric performance for low latency, high bandwidth for cellular connectivity. More recent innovation has shown scandium's value in tuneable ferroelectric chips, as a more powerful alternative to existing flash (NAND) memory.



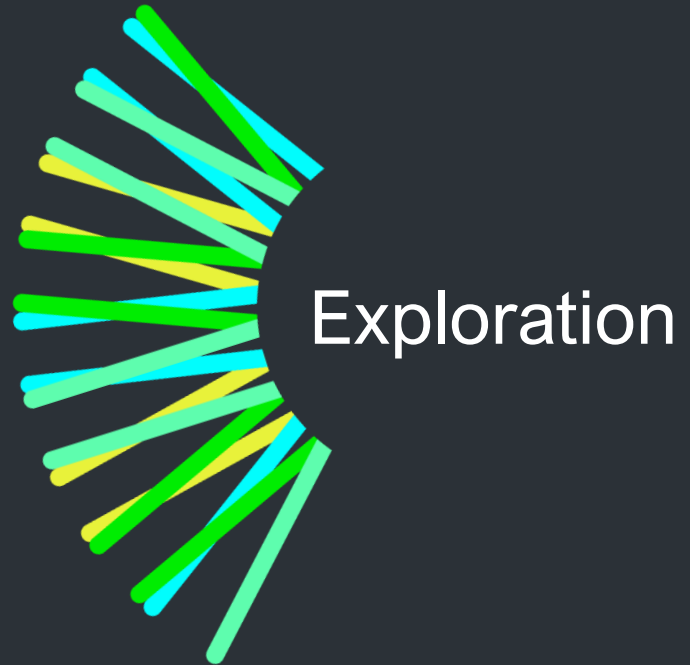
FUEL CELLS / HYDROGEN

The largest application presently, but we expect growth to be moderate.

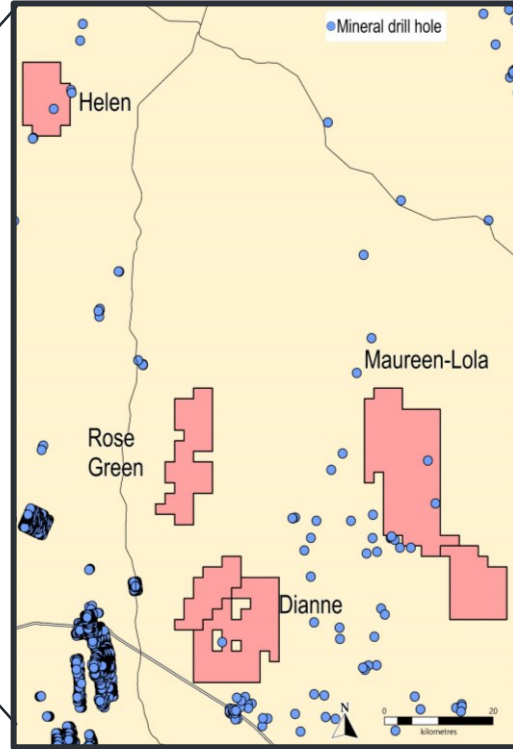
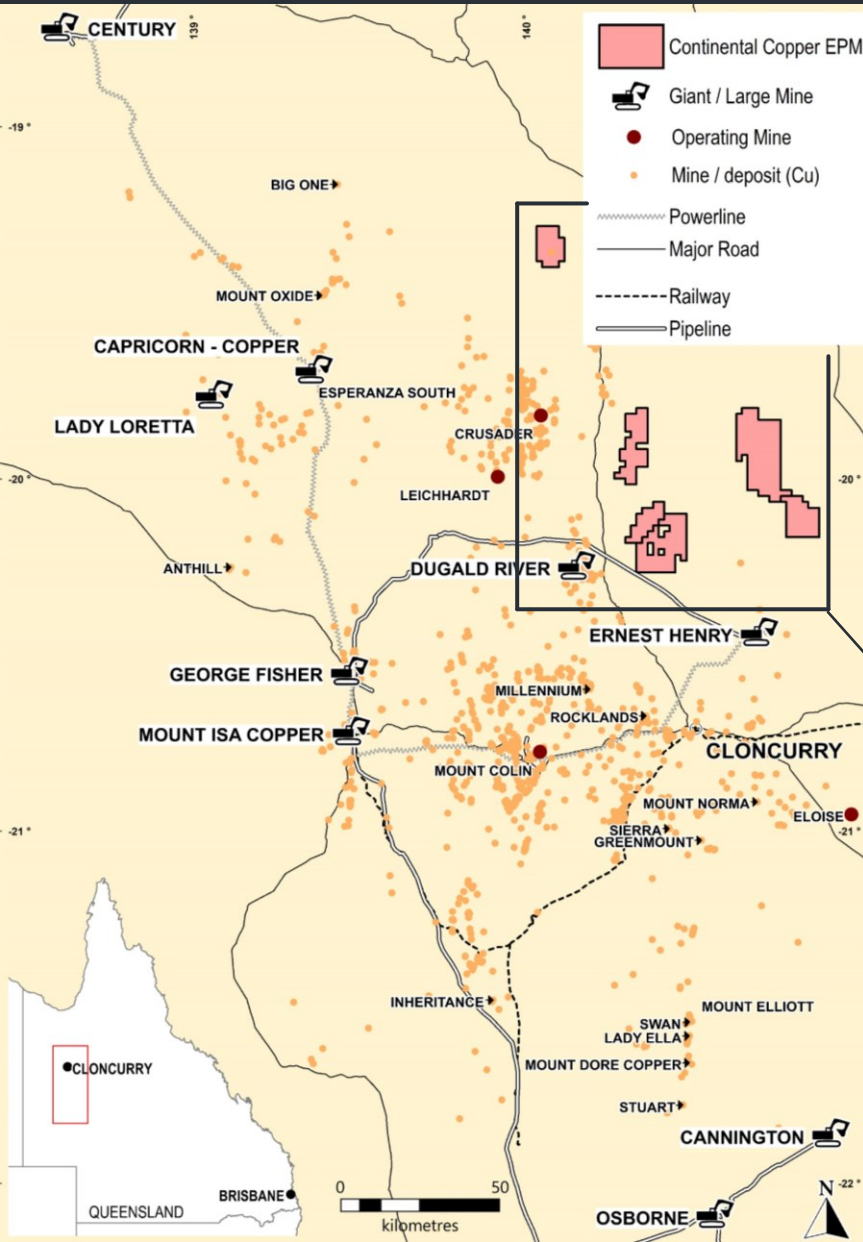
Solid oxide fuel cells electrochemically convert natural gas to electricity and may be used as a hydrolyzer to produce green hydrogen.

Civilian and defence applications for site-sensitive off-grid power generation, e.g. server farms, key infrastructure, military sites.

- Three strategic markets – high performance military and civilian alloys; semiconductors; low-emission technologies
- The alloy market presents the largest growth opportunity by volume and is the focus of our development efforts
- Scandium is needed in intermediate, chemical and metal form – China currently controls all these markets
- China has placed restrictions on export of technology and equipment in REE markets

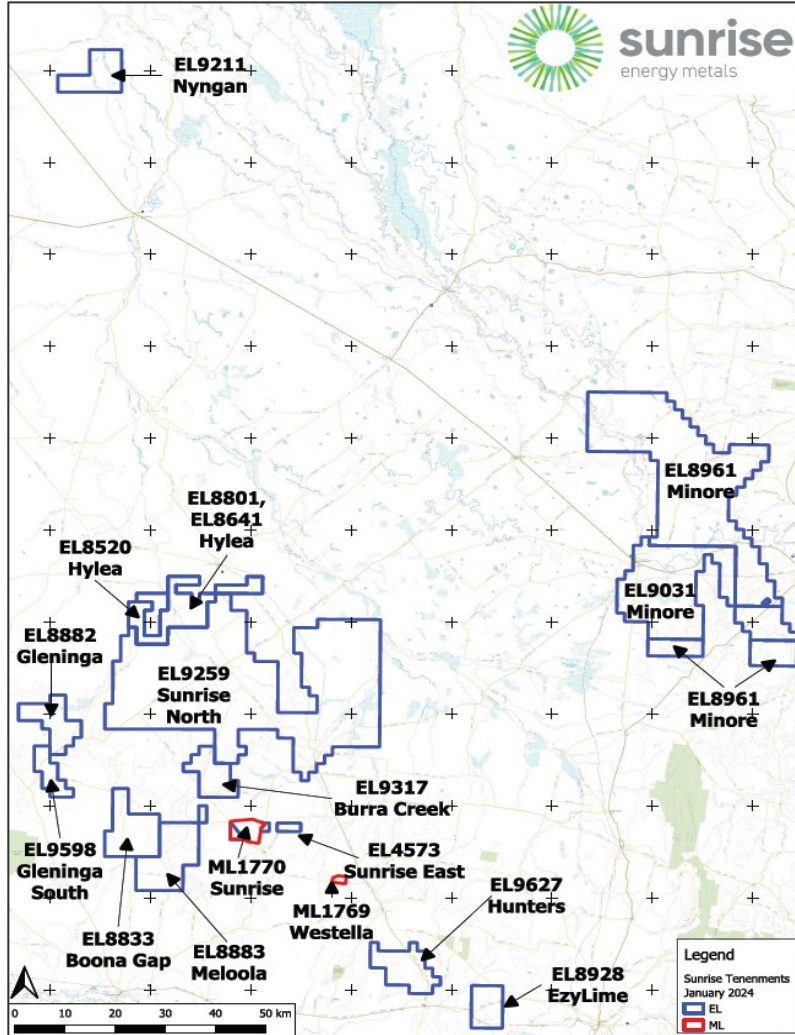


Clonagh Trend, Cloncurry (Qld)



- Six Exploration Permits (EPMs) covering 912 km² in the world-class Cloncurry district in Queensland, Australia.
- Sunrise Energy Metals has optioned these tenements via a conventional earn-in arrangement – sole funding \$3M for 51% or \$8M for 75%
- Located in proximity to major mining operations (20km east of Dugald River and 30km north of Ernest Henry)
- Underexplored terrane due to cover sequences
- Land access arrangements in process, with drilling anticipated to commence in CY25

Lachlan Fold Belt (NSW)



- Over 3,400km² of exploration acreage across the highly prospective Lachlan Fold Belt
- Recent exploration activities have targeted shallow limestone for Sunrise, with reverse circulation (RC) drilling programs completed on the Boona Gap and Meloola licenses over the first half of 2024
- Limestone supply closer to site presents opportunities to reduce trucking distances and hence opex
- Preliminary surveying of the Minore prospect was also undertaken, with a view to assessing REE potential



FY25 targets and investment thesis

Targets for FY2025

Sunrise Nickel-Cobalt	• Continue engagement on offtake / funding, particularly in the US • Complete pre-construction activities and preserve options for re-start • Minimal spend anticipated
Sunrise Scandium	• Complete update on capital estimate and schedule • Undertake optimization study – design scope; metal refining • Progress work on 6-xxx series extrusion trials in the US • Offtake discussions and market assessment
Exploration	• Complete reprocessing of historic geophysical data • Finalise access arrangements in Cloncurry and commence drilling

Strategic positioning 	Development-ready 	Exploration 	Sustainability 
1. A <u>portfolio of large, low cost assets</u> 2. <u>Metals with high strategic value</u>: batteries, alloys, chips 3. Option for <u>downstream value-add</u> (e.g. patented alloys, metal production, etc) 4. <u>Geopolitical tensions</u> are demanding alternatives to China's supply chains	1. Key <u>permits and approvals</u> secured 2. Pre-construction activities completed, with <u>minimal holding costs</u> going forward 3. Australia viewed as a <u>safe and reliable partner</u> and an excellent location for development	1. Large land positions held in <u>two of the world's most prospective geological districts</u> 2. Target generation in Cloncurry is supported by a partner with a <u>world class exploration team</u>	1. Projects have been designed with <u>strong sustainability credentials</u> 2. <u>Lowest quartile Scope 1-3 emissions</u> and world class water and waste management 3. <u>High supply chain reliability</u> and <u>low reputational risk</u> 4. Growing awareness that the <u>'Energy Transition' is really a 'Materials Transition'</u>



Board



Robert Friedland
Co-chair and
Non-Executive
Director



Jiang Zhaobai
Co-Chair and
Non-Executive
Director



Sam Riggall
Managing Director
and Chief
Executive Officer



Eric Finlayson
Non-Executive
Director



Stefanie Loader
Lead Independent
Non-Executive
Director

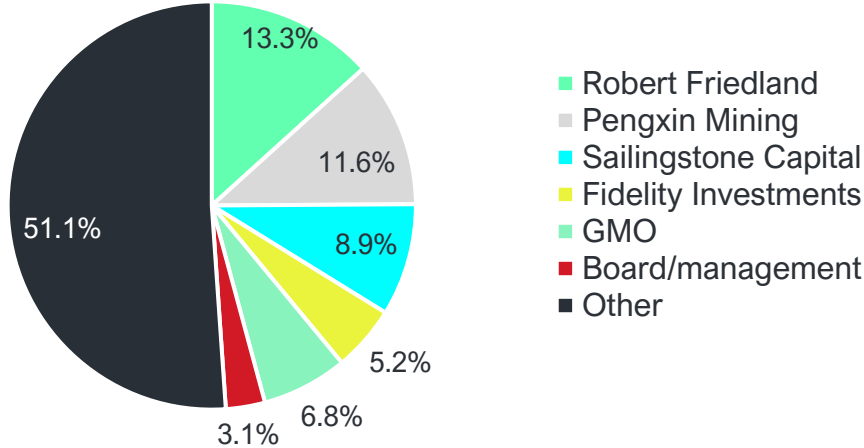


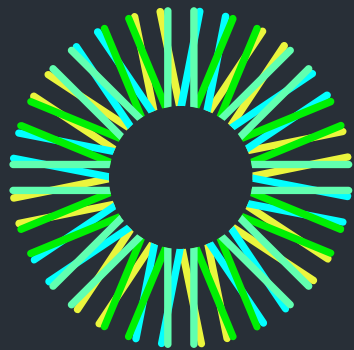
Trevor Eton
Non-Executive
Director

Sunrise Energy Metals Ltd

ASX Code	ASX:SRL
OTCQX Code	OTCQX:CTEQF
Shares on Issue	90.2M
Share Price (at 30 September 2024)	0.42
Market Capitalisation	A\$38 million
Cash (as at 30 September 2024)	A\$7.2 million
Options and performance rights	2.5 million

Major shareholders (as at 30 Sep 2024)





sunrise
energy metals

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