

CRITICAL RESOURCES APPOINTS LEADING SOLID-STATE BATTERY INVENTOR - DR SMIRNOVA AS TECHNICAL ADVISOR

Appointment strengthens execution of solid-state battery evaluation strategy, providing independent technical oversight across patented technology and evaluation program.

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- **World-leading solid-state battery expert appointed as Technical Advisor:** Globally recognised solid-state battery scientist Dr Alevtina (Alla) Smirnova has been appointed as Technical Advisor to the Company, strengthening capability during its solid-state battery evaluation program.
 - **Transition to structured laboratory validation:** Commencement of formal evaluation programs, marking the transition from access to solid-state battery patented IP toward structured, laboratory-based validation and early prototype-oriented work programs.
 - **Solid-state battery innovation:** Dr Smirnova is the inventor of multiple lithium and sodium solid-state battery technologies, complementing Critical Resources' exclusive evaluation option agreement with the South Dakota School of Mines & Technology (SDM) and providing continuity between research breakthroughs and structured evaluation program.
 - **CEPS program leadership:** Dr Smirnova is Director of the U.S. National Science Foundation (NSF)-backed industry–university cooperative research Centre for Solid-State Electric Power Storage (CEPS) strengthening engagement with a leading solid-state battery research network.
 - **Deep domain expertise:** Dr Smirnova brings extensive expertise across the morphological, chemical and electrochemical characterisation of advanced materials for solid-state batteries.
 - **Accelerating safer, high-performance solutions:** Solid-state battery IP under evaluation targets improved safety, higher energy density, and enhanced cycle reliability for high-temperature, high-reliability applications including data centres, defence, and mining.
 - **Strategic integration across the value chain:** Strengthening CRR's capability from upstream lithium supply through to downstream battery technology development, enhancing optionality across partnerships, IP generation and future commercial pathways.

Critical Resources Limited ('Critical Resources' or the 'Company', **ASX:CRR**) is pleased to announce the appointment of Dr Alevtina (Alla) Smirnova as Technical Advisor to the Company. The appointment materially strengthens CRR's solid-state battery evaluation program and reinforces the Company's transition from early-stage IP access to structured laboratory validation and prototype-oriented development.

Dr Smirnova's appointment supports the Company's exclusive option to undertake a structured research evaluation program with the South Dakota School of Mines & Technology (SDM) on solid-state lithium-ion battery technologies (refer ASX announcement dated 18 November 2025). The structured evaluation program is focused on disciplined laboratory synthesis, materials optimisation and electrochemical

performance assessment to generate data that will inform future technical decisions and enhance optionality across partnerships, IP generation and future commercial pathways (refer to ASX:CRR announcement 11 February 2026).

Momentum in the global battery sector continues to build, with development and research efforts increasingly focused on solid-state lithium-ion architectures. Manufacturers are seeking to overcome key limitations of conventional lithium-ion cells, including safety risks, thermal instability, operational and performance constraints. Solid-state systems replace flammable liquid electrolytes with advanced solid electrolyte materials, significantly reducing thermal runaway risk while enabling enhanced performance across broader operating temperature ranges and improved long-term durability.

Critical Resources' strengthened technical leadership and research network support a disciplined evaluation of its optioned solid-state battery technologies. The Company's expanded technical capability positions it to more effectively assess performance, scalability, and longer-term strategic pathways.

The Company's acceptance into the U.S. National Science Foundation-backed Centre for Solid-State Electric Power Storage (**CEPS**) (refer ASX:CRR announcement 2 February 2026), together with the commencement of solid-state battery evaluation programs with the South Dakota School of Mines & Technology (SDM), marks **CRR's transition from IP access to structured, laboratory-based evaluation and early prototype-oriented development.**

Dr Alevtina Smirnova

Dr Smirnova is a globally recognised leader in advanced battery materials and solid-state battery research and serves as Director of the U.S. National Science Foundation-supported Centre for Solid-State Electric Power Storage (CEPS). Her appointment strengthens technical continuity across CRR's solid-state battery evaluation pathway and enhances access to a multi-institutional research network spanning academia, government and industry.

Dr Smirnova is a Professor in the Department of Chemistry, Biology and Health Sciences at the South Dakota School of Mines & Technology, holds the J. Ganes Professorship Endowment within the Materials Engineering and Science program and was the Principal Investigator (PI) of the South Dakota Governor's Research Centre for Electrochemical Energy Storage. She has extensive experience across green and sustainable chemistry, electrochemistry and materials science, and has led NSF-supported research and development programs.

Dr Smirnova holds a PhD in Chemistry and is an inventor on multiple patents and disclosures, with an extensive publication record in advanced energy materials. Her research has been supported by the U.S. National Science Foundation and the U.S. Department of Defence.

Dr Smirnova has been providing independent technical guidance leading into the commencement of these evaluation programs, assisting in the design of evaluation frameworks, benchmarking methodologies and milestone sequencing. Dr Smirnova's involvement ensures that research activities are aligned with internationally competitive development standards and that performance data generated through the program is robust, comparable, and relevant to the assessment of future strategic pathways.

Critical Resources Managing Director, Tim Wither, commented: *'The appointment of Dr Smirnova as Technical Advisor to Critical Resources significantly strengthens the technical capacity of our solid-state lithium-ion evaluation program. As the inventor of multiple solid-state battery advancements and our optioned intellectual property, Dr Smirnova brings unparalleled insight into both the underlying technology and the CEPS research framework within which it is being evaluated.'*

'Importantly, Dr Smirnova's involvement supports the Company's transition from early-stage access of solid-state battery intellectual property, towards a disciplined, laboratory-based evaluation phase. This includes milestone-driven assessment of performance from fundamental research through to prototype development, using standards consistent with leading global battery programs.'

'As Critical Resources continues to evolve its strategy across critical materials and downstream technology evaluation, Dr Smirnova's appointment provides independent technical oversight as we assess future strategic pathways and opportunities.'

NEXT STEPS

With solid-state battery evaluation programs now underway under structured work programs delivered in partnership with the Centre for Solid-State Electric Power Storage (CEPS) and the South Dakota School of Mines & Technology (SDM), the Company's immediate focus is on execution of evaluation milestones. These activities are designed to build the technical foundation of the Company's solid-state battery strategy without implying commercial manufacturing at this stage. Key priorities over the coming months include:

- **Advancing materials development:**
Refining electrolyte formulations, improving interface stability, and optimising dry-deposited cathode and electrolyte structures using CEPS' world-class research infrastructure.
- **Building out evaluation datasets:**
Generating structural, morphological, electrochemical and interface data to support prototype development and guide next-stage program decisions.
- **Progressing toward prototype cells:**
Integrating the electrolyte and cathode into initial prototype solid-state cell assemblies for laboratory and third-party assessment.

Outcomes from these programs will inform decisions on prototype-level development and strategic pathways. The Company will update the market of its structured research evaluation program as material technical milestones are achieved.

This announcement has been approved for release by the Board of Directors of Critical Resources.

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ABOUT CRITICAL RESOURCES LIMITED

Critical Resources Limited (ASX:CRR) is an Australian mining and technology company focused on the exploration and development of metals and advanced next-generation battery technologies essential for a sustainable future. The Company's portfolio includes the Mavis Lake Lithium Project in Ontario, Canada, the Halls Peak Base Metals Project in New South Wales, Australia, and a growing gold portfolio in New Zealand.



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PREVIOUSLY REPORTED INFORMATION

This document contains information relating to the Mineral Resource estimate for the Mavis Lake Lithium Project, which is extracted from the Company's ASX announcement dated 5 May 2023 and reported in accordance with the 2012 JORC Code and available for viewing at www.criticalresources.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply and have not materially changed.

Mavis Lake Lithium Project - Mineral Resource Estimate

Mavis Lake Lithium Project JORC Classification	Li ₂ O Cut-Off grade (%)	Tonnage (Mt)	Li ₂ O (%)
Inferred	0.3	8.0	1.07
Total*		8.0	1.07

*Reported at a cut-off grade of 0.30% Li₂O for an open pit mining scenario. Estimation for the model is by inverse distance weighting. Classification is according to the JORC Code Mineral Resource categories. Refer to ASX:CRR announcement 5 May 2023.

FORWARD LOOKING STATEMENTS

This announcement may contain certain forward-looking statements and projections. Statements regarding CRR's plans with respect to its mineral properties and programs are forward-looking statements. Such forward-looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward-looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. There can be no assurance that CRR's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that CRR will be able to confirm the presence of additional mineral resources, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of CRR's mineral properties. Critical Resources Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projections based on new information, future events or otherwise, except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Critical Resources Limited or any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.