CRITICAL RESOURCES ACCEPTED INTO U.S. SOLID-STATE BATTERY INNOVATION CENTER - CEPS

American National Science Foundation (NSF) backed Centre for Solid-State Electric Power Storage (CEPS) provides execution platform for Critical Resources' solid-state lithium-ion battery evaluation program.

- **Evaluation pathway established**: CRR has joined the U.S. Centre for Solid-State Electric Power Storage (**CEPS**), following the recent acquisition of an exclusive option for several next-generation solid-state lithium-ion battery technologies from the South Dakota School of Mines & Technology (**SDM**).

- **International Solid-State Battery network**: CEPS is a collaborative research centre with industry members including Honda, Mercedes-Benz and Nissan, providing direct access to world-leading solid-state researchers and commercial insights shaping the future of advanced energy storage.

- **Direct alignment with optioned IP**: CEPS participation enables CRR to evaluate next-generation solid-state battery technologies that deliver safer operation, higher energy density, and superior performance compared to conventional liquid lithium-ion battery systems.

- **Access to world-class facilities and researchers:** Significant cost advantages by providing low-cost access to world-class solid-state research teams and testing facilities, accelerating prototype development while materially reducing technical risk.

- **Milestone-based validation support**: The CEPS platform supports CRR's evaluation of next-generation solid-state battery IP from SDM and future sponsored research programs into high-performance solid-state battery electrolytes and advanced cathode technology.

- **Vertical Integration into Advanced Battery Technologies**: CEPS accelerates CRR's strategy to complement critical mineral supply into solid-state battery innovation, enabling end-to-end value creation from resource development through to energy storage solutions.

- **Strategic Alignment from Resource to Market:** CEPS connects CRR's Mavis Lake lithium project with a global network of automotive, grid, and technology companies seeking secure, battery-grade lithium supply—positioning CRR across the full value chain from resource development to advanced solid-state technologies.

- **Accelerating safer, high-performance solutions:** The evaluated solid-state systems seek to deliver improved safety, higher energy density and enhanced cycle reliability, supporting demand from data centres, defence, mining and other high-temperature, high-reliability applications.

Critical Resources Limited ('**Critical Resources**' or the '**Company**', **ASX**:**CRR**) is pleased to announce that it has been accepted to join the U.S. Centre for Solid-State Electric Power Storage (**CEPS**) as an industry member, leveraging the Company's recently announced exclusive option to undertake a research

evaluation program with the South Dakota School of Mines & Technology (**SDM**) on solid-state lithium-ion battery technologies, covering five granted US patents and one pending application (ASX:CRR announcement 18 November 2025).

The global battery industry is increasingly focused on solid-state battery technology, driven by the need for safer, higher-performing, and more environmentally responsible energy storage solutions. Unlike **conventional lithium-ion batteries, which rely on flammable liquid electrolytes, solid-state batteries use stable solid electrolytes that significantly reduce the risk of fire** and thermal runaway. Furthermore, solid-state battery designs being evaluated support more sustainable manufacturing by reducing hazardous materials and enabling greater recyclability.

Critical Resources' exclusive evaluation option of advanced solid-state lithium-ion battery technologies with SDM supports more sustainable manufacturing processes by reducing environmental impact through the use of non-sulphide electrolytes. These technological advancements not only **enhance safety but also enable higher energy density, longer cycle life, and improved performance at elevated temperatures—key requirements for electric vehicles, grid and data centre storage, and portable electronics**.

***Figure 1** - CEPS enables Critical Resources to access a multi-university research network and advanced federal laboratory infrastructure supporting solid-state battery validation, prototyping, and development.*

CENTRE FOR SOLID-STATE ELECTRIC POWER STORAGE - CEPS

CEPS (greenceps.com) is an American National Science Foundation (**NSF**) supported Industry–University Cooperative Research Centre, that brings together South Dakota Mines (South Dakota), Northeastern University (Boston), Syracuse University (New York) and Cornell University (New York). The Centre works closely with a broad network of industrial and government partners to accelerate the transition of solid-state battery technologies from laboratory research into real-world applications.

CEPS has a proven record of innovation, with a strong patent portfolio and successful collaborations with global leading industry partners such as Honda, Mercedes-Benz, and Nissan. The multi-institutional-industry

collaboration approach has delivered real-world impact, advancing solid-state battery technologies from research to commercialisation.

CEPS' mission is in developing environmentally friendly, safe, and economically feasible solid-state energy storage technology for portable electronics, medical devices, automotive, aeronautics, centralized and decentralized energy grids, military, and energy security applications.

By joining CEPS, **Critical Resources moves from working with an individual university laboratory to being embedded within a coordinated, multi-institutional program** designed to accelerate the transition of solid-state battery technologies from research to prototypes to be tested in real-world applications.

Through CEPS, the Company will have access to:

- Integrated multidisciplinary research across **materials engineering, manufacturing technology, cell characterisation, cell analysis, cell design and system integration**.
- **Direct access to a large group of specialist faculties and research teams** enabling CRR to commission targeted technical projects and validation activities aligned with its strategic priorities toward prototype development.
- **Low-indirect-cost access** to advanced world-class solid-state battery research, testing and development facilities, compared to direct engagement with commercial and university partners.
- **Federal research infrastructure**, including U.S. Department of Energy facilities for detailed structural, chemical and morphological analysis of solid-state battery materials and prototype cells.

Critical Resources Managing Director, Tim Wither, commented: '*Joining CEPS positions Critical Resources within a coordinated solid-state research environment that provides the specialised capability we need to rigorously evaluate the advanced technologies optioned from South Dakota Mines. This platform gives us direct access to world-class research teams, analytical tools and federal-grade infrastructure, creating a clear and credible pathway to validate performance, reduce technical risk and progress these designs toward early-stage prototype development.*

'CEPS brings together leading U.S. universities, laboratories and industry partners working at the forefront of solid-state science. Being part of this network ensures our evaluation program is benchmarked against global standards and aligned with the requirements of automotive, defence, grid-storage and high-reliability sectors seeking safer, higher-performance battery technologies.

'Just as importantly, CEPS strengthens the strategic connection between our Mavis Lake lithium resource and downstream solid-state innovation. As global battery manufacturers increasingly seek secure, traceable supply of battery-grade lithium, our involvement in CEPS positions Critical Resources across a broader section of the value chain — from resource development through to next-generation energy storage technologies.'

KEY TECHNOLOGY ADVANTAGES AND REAL-WORLD APPLICATIONS

Critical Resources' exclusive evaluation option with the South Dakota School of Mines & Technology (SDM) provides a direct pathway to assess advanced, non-sulphide solid-state electrolytes and next-generation lithium-metal architectures designed to improve safety, energy density and high-temperature performance.

These technologies address key industry challenges by expanding safe operating temperature, enabling higher efficiency under thermal stress. These advantages are driving strong interest from automotive, grid and data centre operators seeking to overcome the limitations of today's liquid lithium-ion battery architecture.

Importantly, the technologies under evaluation from SDM, support more sustainable and scalable manufacturing by reducing reliance on hazardous solvents and enabling cleaner processes that are inherently more recyclable and environmentally responsible. This positions CRR at the forefront of next-generation energy storage innovation as global markets seek safer, cleaner and high-performance solid-state solutions.

- **High-temperature solid-state electrolyte unlocks new markets** - elevated-temperature electrolytes maintain performance, enabling safer, more reliable and safer energy storage solutions for data centres, defence, mining and heavy industrial environments where heat, cooling cost and uptime are critical.
- **Safer, higher-performance battery architecture** - Non-flammable solid electrolytes replace liquid electrolytes, reducing fire risk, greatly improving energy density and extending battery cycles.
- **Cleaner, scalable manufacturing pathways** - Solvent-free, sulphur-free electrolyte and cathode processes reduce hazardous materials, lower emissions and support more sustainable, regulatory-aligned production, making the technology more attractive to future global manufacturing partners.
- **Faster, more efficient prototype and cell development** - simplified solid-state construction allows faster prototyping and more consistent component quality, accelerating ability to validate performance and move toward prototype development.

NEXT STEPS – EVALUATION STAGE

By joining CEPS, Critical Resources gains access to world-class research capabilities and collaborative expertise, accelerating the Company's ability to validate performance through the development of prototype battery cells incorporating advanced solid-state electrolytes and interface architectures. This partnership positions CRR at the forefront of creating safer, more efficient, and environmentally responsible energy storage solutions.

In parallel, CEPS' focus on critical metals, battery recycling and environmentally responsible lithium extraction provides potential future collaboration with CRR's lithium assets at Mavis Lake in Canada and downstream solid-state battery technologies. Over time, this creates optionality for the Company to explore integrated value chains spanning resource development, advanced materials, cell architectures and end-of-life recovery.

CRR is now finalising the detailed scope of work under the CEPS research project framework, with the initial program to be confirmed shortly. The program will prioritise milestone-driven validation activities — including solid-state electrolyte testing, interface engineering and cathode prototyping — creating the structured technical pathway required to progress our evaluation toward the goal of developing next-generation solid-state battery prototypes.

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

To receive alerts for ASX announcements and updates sign up at **www.criticalresources.com.au** or for further information please contact us directly at:

E: info@criticalresources.com.au
P: +61 (8) 9465 1024

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.

SCAN ME

Critical Resource Interactive Investor Hub
Engage with Critical Resources directly by asking questions, watching video summaries and seeing what other shareholders have to say about this, as well as past announcements.
For more information visit: www.criticalresources.com.au

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_2O Cut-Off grade (%)	Tonnage (Mt)	Li_2O (%)
Inferred	0.3	8.0	1.07
Total*		**8.0**	**1.07**

*Reported at a cut-off grade of 0.30% Li_2O 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 statement. 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.