CO-OPERATION AGREEMENT WITH BONDALTI TO COMMERCIALISE SUSTAINABLE ELi® LITHIUM PROCESS

HIGHLIGHTS

- **Reed Advanced Materials Pty Ltd ("RAM") (Neometals 70% and Mineral Resources Ltd 30%) has agreed terms with Bondalti Chemicals, S.A. to evaluate commercialisation of its ELi® lithium process in Europe;**
- **The proposed 25,000tpa lithium refinery in Portugal will be the first ELi® deployment to produce battery quality lithium hydroxide and lithium carbonate;**
- **ELi® replaces conventional, carbon-intensive chemical conversion of lithium chloride solutions with electrolysis to produce lithium chemicals, potentially utilising renewable energy;**
- **Bondalti and RAM will co-fund construction and operation of a pilot plant at Estarreja and complete evaluation studies over 18 months at a shared cost of US$4 million; and**
- **The pilot plant, and proposed commercial refinery, will be integrated with Bondalti's existing chlor-alkali operations, which share significant processing commonalities with the ELi® process.**

Innovative project developer Neometals Ltd (ASX: NMT) ("**Neometals**") and leading mining services provider Mineral Resources Limited (ASX: MIN) ("**MIN**" – via its wholly owned subsidiary Process Minerals International) are pleased to jointly announce that their 70:30 co-owned company, Reed Advanced Materials Pty Ltd ("**RAM**") has entered into a binding Co-operation Agreement ("**Co-operation**") with Portugal's largest chemical producer Bondalti Chemicals, S.A. ("**Bondalti**"). RAM is the holding company for the ELi® processing technology ("**ELi®**").

The Co-operation contemplates the co-funding of certain evaluation activities required for a decision to form a 50:50 incorporated joint venture ("**JVCo**") to construct and operate a lithium refinery ("**Refinery**") at Bondalti's extensive chlor-alkali operations in Estarreja, Portugal. The evaluation activities will include the construction and operation of a pilot plant in Portugal and completion of an AACE Class 2 Front End Engineering and Design Study ("**FEED Study**"). Completion is targeted for 30 June 2023 at a shared cost of approximately US$4 million. Under the Co-operation RAM and Bondalti have established a Steering Committee with equal representation from both parties to oversee the conduct of the evaluation activities and establishes a framework of terms for JVCo formation.

The proposed Refinery will be the first commercial operation to use RAM's ELi® Process which has successfully produced battery-quality lithium hydroxide from operating spodumene and brine operations. ELi® is a process for purifying an aqueous lithium solution (lithium chloride) to produce lithium hydroxide in conventional chlor-alkali (electrolysis) cells. ELi® uses commercially available chlor-alkali equipment and has been tested for reliability in 100 and 200hr duration continuous mini-pilot scale trials. A feasibility study for the application of the ELi® technology in a Malaysian plant was completed in 2016 (*for further details see Neometals announcement titled "Positive Lithium Downstream Processing Feasibility Results" dated 11th July 2016*).

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This Co-operation is a significant step towards ELi® commercialisation with an industry leading partner that operates similar equipment for shared markets at industrial scale. The technology, which radically reduces the requirement for (and transport of) reagents represents the opportunity for a step change in environmental sustainability, operating and capital costs for both spodumene and brine lithium projects. ELi® feedstock flexibility enables domestic production of lithium chemicals from the conversion of both European hard rock and imported brine concentrates ensuring an ethical and resilient local lithium supply chain for the EV battery industry.

Chris Reed, Managing Director, commented:

"We are eager to take another step towards commercialising our ELi® process and building a globally competitive, high purity 'battery quality' lithium chemical facility. Bondalti is a highly credentialed chemical producer and operator of chlor-alkali facilities which use electrolysis to produce sodium hydroxide. Moreover, Bondalti's existing by-product hydrogen and chlorine gases provide a ready market for the by-products of the ELi® Process.

The synergies of first-class technical skills and infrastructure at Estarreja maximise the probability of technical success in the full-scale pilot plant trials and enhance the potential financial metrics of its first commercial application. This is another demonstration of our ability to secure strong operating partners to co-fund the commercialisation of our project pipeline. The Co-Operation is an exciting milestone for Neometals and its ELi® co-owner, Mineral Resources Ltd, who have been steadfast supporters of this potentially game-changing technology since its genesis in 2012."

ELi® Background

RAM developed the process behind ELi® from concept through to semi-pilot scale testing during the past 8 years with a view to having a competitive and reliable method of large-scale lithium hydroxide and carbonate production to support efforts to decarbonise the lithium-ion battery ("**LiB**") supply chain. Sourcing lithium chemical units with a reduced CO_2 footprint is a high priority for the electric vehicle industry. The process has been tested on synthetic and actual lithium sources, both hard rock and brine. A number of sources from South American continental brines have generated promising technical results with strong potential economics highlighted in cost studies.

The development aims included:

- Sustainable long-term cost advantage for lithium hydroxide and lithium hydroxide production
- Adaption of conventional chlor-alkali process to produce high-purity lithium hydroxide as primary product with flexibility to produce even purer lithium carbonate by sparging primary solution with captured CO_2 gas
- Reduced carbon footprint from processing at source with renewable electricity and captured carbon
- Minimisation use (and transport) of imported reagents for chemical removal of impurities through the use of solvent extraction and ion-exchange purification techniques

Summary of Bondalti Co-Operation

Key terms of the Bondalti Co-operation include:

- Binding Co-operation agreement under which RAM and Bondalti will dedicate means and resources to evaluate the feasibility (technical, economic and financial) to construct and operate a Refinery to commercially deploy the ELi® Process for the generation of lithium hydroxide for future European automotive applications.
- RAM and Bondalti have established a steering committee with equal representation from both parties to oversee the evaluation activities. The parties will each be responsible for 50% of the total costs of conducting the evaluation activities.
- Pursuant to the Co-operation, the parties will construct and operate a pilot plant in Portugal, and if satisfied with the results of the pilot plant, complete an AACE Class 2 FEED Study for a Refinery in Estarreja. After completing the FEED Study, the parties will make a decision as to whether they wish proceed with establishing a commercial Refinery

operation, and thereby establish JVCo. RAM will provide JVCo with a royalty free licence to use the ELi® Process in the Refinery operation.

- If JVCo is established, Bondalti will undertake to identify project debt funding for JVCo on best available terms and identify/apply for appropriate European Union subsidies.
- The Co-operation establishes a framework of key principles and terms for the incorporated JVCo, to be set up and owned 50:50 between RAM and Bondalti, if the evaluation activities are successful.
- For the duration of the Co-operation, the parties have agreed to deal exclusively with each other in relation to the application of electrolysis technology for the production of lithium chemicals in the area of the European Patent Convention countries.
- The Co-operation terminates on 30 September 2023 or such other date as the parties may agree in writing.

Detailed summary of the ELi® Project

A slide presentation will be lodged with the ASX immediately following the lodgement of this announcement to provide more detail on the technology and its application relative to the Bondalti transaction.

Authorised on behalf of Neometals by Christopher Reed, Managing Director

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About Neometals Ltd

Neometals innovatively develops opportunities in minerals and advanced materials essential for a sustainable future. With a focus on the energy storage megatrend, the strategy focuses on de-risking and developing long life projects with strong partners and integrating down the value chain to increase margins and return value to shareholders.

Neometals has three core projects that support the global transition to clean energy and span the battery value chain:

Recycling and Resource Recovery:

- Lithium-ion Battery Recycling – commercialising a proprietary process for recovering nickel, cobalt and other valuable materials from spent and scrap lithium batteries. In a 50:50 incorporates JV with SMS group called Primobius GmbH. Targeting commencement of commercial operations in 10tpd plant in Germany in the MarQ 22 and a development decision on larger 50tpd plant in July 2022; and
- Vanadium Recovery – sole funding evaluation studies to form a 50:50 joint venture with Critical Metals Ltd to recover high-purity vanadium pentoxide from processing by-products ("Slag") from leading Scandinavian steelmaker SSAB. Underpinned by a 10-year Slag supply agreement, Neometals is targeting an investment decision to develop a 200,000tpa processing plant in DecQ 2022.

Upstream Industrial Minerals:

- Barrambie Titanium and Vanadium Project - one of the world's highest-grade hard-rock titanium-vanadium deposits, working towards a development decision in 2022 with potential operating JV partner IMUMR and potential cornerstone product off-taker, Jiuxing Titanium Materials Co.