COMMISSIONING OF BATTERY RECYCLING DEMONSTRATION PLANT

HIGHLIGHTS

ASX ANNOUNCEMENT

- Commencement of commissioning the Primobius (JV between Neometals and SMS group) lithium battery recycling demonstration plant in Hichenbach, Germany;
- 'Front-end' shredding and beneficiation circuit construction complete and dry commissioning in progress;
- Construction of the 'Back-end' refinery circuit nearing completion; and
- Feasibility Study on track for completion March 2022.

Innovative project development company, Neometals Ltd (ASX: NMT) ("Neometals" or "the Company"), is pleased to announce that Primobius GmbH ("Primobius"), the joint venture ("JV") company owned 50:50 by Neometals and SMS group GmbH ("SMS group"), has commenced commissioning of its showcase lithium-ion battery ("LIB") recycling demonstration plant ("DP") in Hilchenbach, Germany. Primobius is combining Neometals' unique and sustainable hydrometallurgical LIB recycling technology with SMS groups' global engineering, plant construction and R&D industrialisation skills.

Following 5 years of Neometals development, including a comprehensive pilot trial, Primobius has continued commercialisation efforts with significant DP progress achieved. The fully integrated and continuous DP trial constitutes one of the evaluation activities required for the JV owners to make an investment decision relating to construction of the JV's first commercial recycling plant. Neometals and SMS group have been co-funding the evaluation steps, which will also include subsequent completion of Feasibility Study and the commercial negotiations required to secure LIB feed and product offtake arrangements.

The DP is located in a dedicated building within the SMS group engineering competence centre in Hilchenbach. The trial schedule contemplates commissioning and operation of the 'Front-end' Shredding and Beneficiation Circuit first, followed by commissioning of the 'Back-end' Hydrometallurgical Refining Circuit. DP LIB feedstocks have been secured from electric vehicle

and energy storage system manufacturers and the DP will serve as a showcase for generating evaluation product for potential customers, partners and off-takers. The DP will provide an opportunity for potential partners to verify Primobius' capability to safely, sustainably and ethically dispose of hazardous LIBs.

The DP is permitted to operate at a rate of 1t per day and the 'Front-end' circuit is being 'powered up' ahead of dry and then wet testing. Construction of the DP Back-end circuit is almost complete and will follow the same sequence of steps before the DP trial commences in earnest. Approximately [10] tonnes of whole LIB cells are to be shredded during the DP trial.



Figure 1 – Two stage Shredding Circuit

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Neometals All the right elements



Neometals' Managing Director Chris Reed commented:

"We are excited to be commencing our much anticipated recycling demonstration trial. The Primobius and SMS teams have done an exceptional job to keep the timeline tight through a challenging period of global Covid delays. As can be seen from the images, this plant is a real showcase of German engineering and we look forward to proving our proprietary flowsheet at larger scale and safely generate product samples promised to our commercial partners under the various commercial evaluation agreements that underpin our battery feedstock and product offtake strategies. We look forward to sharing our progress throughout the trial".



Figure 2 – 3D rendering showing DP footprint with the Front-end Shredding and Beneficiation circuit on the left side and the Back-end Hydrometallurgical Refining circuit in the right-hand adjoining hall.

Watch 3D Flythrough Video: www.neometals.com.au/primobius-demo-plant/



Figure 3 – Aerial view showing the SMS group Manufacturing centre at Hilchenbach, Germany



Figure 4 - Primobius DP halls (leased from SMS)



Figure 5 – *Process flow diagram showing Front-end Shredding and Beneficiation circuit in the top right*



Figure 7 – Black Mass (Powder) Vacuum Dryer, Condenser and Electrolyte Recovery Circuit



Figure 6 –*Shredder feeding into* – *Primary Classification Circuit* (foreground -red) removes and bags plastics and Cu/AI metal foils



Figure 8 – Primary Leach Tanks in Hydrometallurgical Refinery Section of DP



Figure 9 – Single Solvent Extraction Mixer/Settler Circuit



Figure 10 – Final Product Crystalliser.



Figure 11 – Indicative Primobius timeline mapping out development steps towards commercial recycling operations

Authorised on behalf of Neometals by Christopher Reed, Managing Director

ENDS

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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 four core projects with large partners that support the global transition to clean energy and span the battery value chain:

Recycling and Resource Recovery:

- Lithium-ion Battery Recycling a proprietary process for recovering cobalt and other valuable materials from spent and scrap lithium batteries. Pilot plant testing completed with plans well advanced to conduct demonstration scale trials with 50:50 JV partner SMS group, working towards a development decision in early 2022; and
- Vanadium Recovery sole funding the evaluation of a potential 50:50 joint venture with Critical Metals Ltd to recover vanadium from processing by-products ("Slag") from leading Scandinavian Steel maker SSAB. Underpinned by a 10-year Slag supply agreement, a decision to develop sustainable European production of high-purity vanadium pentoxide is targeted for December 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 mid-2022 with potential 50:50 JV partner IMUMR.