Outstanding Lithium Recovery Results for Primobius

Highlights

- New lithium recovery flowsheet results improve lithium yields from >83% to >93%;
- Hydrometallurgical refinery ("**Hub**") trials produce lithium fluoride with +95% purity which is expected to offer operating and capital cost savings; and
- Lithium fluoride a major component in lithium electrolyte manufacturing, has traded historically at a 60% premium to lithium carbonate, further enhancing economics for owners of Primobius Hub plants.

Innovative battery materials recycler, Neometals Ltd (ASX: NMT & AIM: NMT) ("**Neometals**" or "**the Company**"), is pleased to announce the results of trials on a new lithium recovery option for its Hub plant packages to be delivered under supply and technology licensing agreements to third-party customers.

Lithium recoveries exceeding 93% were achieved precipitating lithium fluoride ("LiF") together with purity of 95%. This process improvement option can replace Primobius' current lithium solvent-extraction circuit which produces lithium sulphate ("**$LiSO_4$**") and is expected to reduce both operating and capital costs.

LiF is used to produce lithium hexafluorophosphate ("**$LiPF_6$**"), an inorganic compound which is a key ingredient, or input, in state-of-the-art electrolytes used in lithium-ion battery ("**LiB**") manufacturing. LiF trades historically at a 60% premium over lithium carbonate ("**Li_2CO_3**"), and as such, is expected to increase revenues for owners of Primobius' LiB recycling Hub's with this lithium recovery option.

Primobius has received strong interest in its LiF product from the lithium electrolyte supply chain and will be providing samples under material testwork agreements with leading Chinese precursor and electrolyte manufacturers. Further improvements to product purity are expected to be achieved over the coming months.

Whilst pursuing this new process as part of ongoing continuous improvement and cost reduction work, Primobius is also capable of, based on customer requirements and specifications, producing lithium sulphate $LiSO_4$ suitable for further processing into Li_2CO_3 or lithium hydroxide ("**LiOH**").

Neometals Managing Director Chris Reed said:

"Firstly, I would like to congratulate the Primobius, SMS and Neometals technical teams on another outstanding innovation. Our original plant design now includes EV module discharging and dismantling, and has the flexibility to produce intermediate, cathode or electrolyte lithium products. In addition to meeting regulatory and customer requirements, greater efficiency translates into stronger economics for the owners of our recycling plants."

Figure 1 below shows the European Union Battery Regulations which mandate elemental recovery rates for recycling processes producing battery materials. These latest results show Primobius' end product basket of battery materials (nickel, cobalt, copper and lithium) **all** exceed the mandated recovery rates from recycling black mass feedstock. Neometals' ASX release dated 1/6/2023[1] reported recovery levels of over 95% for nickel, cobalt and copper at the Primobius Hilchenbach, Germany demonstration Hub.

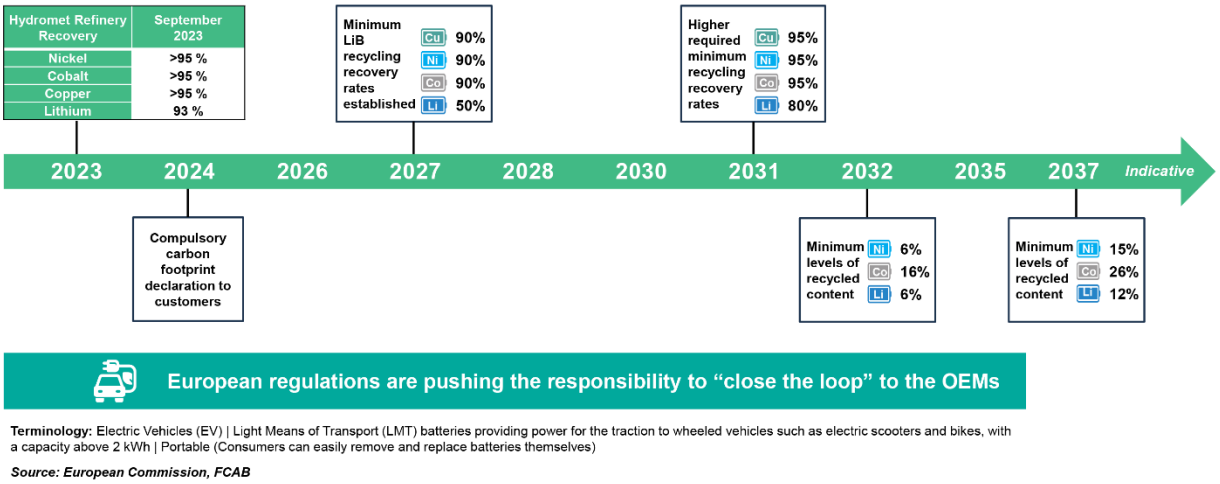

Figure 1: European Union Recycling Regulations

Authorised on behalf of Neometals by Christopher Reed, Managing Director.

ENDS

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[1] See Neometals' ASX release dated 1 June 2023 titled "Primobius Update"

About Neometals Ltd

Neometals has developed and is commercialising three environmentally-friendly processing technologies that produce critical and strategic battery materials at lowest quartile costs with minimal carbon footprint.

Through strong industry partnerships, Neometals is demonstrating the economic and environmental benefits of sustainably producing lithium, nickel, cobalt and vanadium from lithium-ion battery recycling and steel waste recovery. This reduces the reliance on traditional mine-based supply chains and creating more resilient, circular supply to support the energy transition.

The Company's three core business units are exploiting the technologies under principal, joint venture and licensing business models:

- **Lithium-ion Battery ("LiB") Recycling (50% technology) –** Commercialisation via Primobius GmbH JV (NMT 50% equity). All plants built by Primobius' co-owner (SMS group 50% equity), a 150-year-old German plant builder. Providing recycling service as principal in Germany and commenced plant supply and licensing activities as technology partner to Mercedes-Benz. Primobius targeting first commercial 50tpd plant offer to Canadian company Stelco in the DecQ 2023;
- **Lithium Chemicals (70% technology) –** Commercialising patented ELi™ electrolysis process, co-owned 30% by Mineral Resources Ltd, to produce battery quality lithium hydroxide from brine and/or hard-rock feedstocks at lowest quartile operating costs. Co-funding Pilot Plant trials in 2023 with planned Demonstration Plant trials and evaluation studies in 2024 for potential 25,000tpa LiOH operation in Portugal under a 50:50 JV with related entity to Bondalti, Portugal's largest chemical company; and
- **Vanadium Recovery (100% technology) –** aiming to produce high-purity vanadium pentoxide from processing of steelmaking by-product ("**Slag**") at lowest-quartile operating cost. Investment decision with JV partner, Critical Metals pending on planned 9,000tpa vanadium pentoxide operation in Pori, Finland (NMT 72.5% equity). Feedstock sourced under 10-year conditional Slag supply agreement with SSAB and product offtake agreement with Glencore. MOU with H2Green Steel for potential second, larger operation in Boden, Sweden.