Neometals Battery Recycling ‘Hub’ Engineering Cost Results

Neometals (ASX & AIM: NMT)

Announced the successful completion by Primobius GmbH of the ECS for the Hub part (component) of a 21,000 tonnes per annum fully integrated LiB recycling plant.

Neometals Primobius JV official opening

Neometals	**ASX / AIM : NMT**
Stage	**Production + development**
Metals	**Titanium + Vanadium + lithium + nickel**

Market cap	A$351 m @ A$.63
Location	Western Australia, Germany, Finland, USA

Neometals' Battery Recycling 'Hub' Engineering Cost Study Results

Neometals Ltd (ASX: NMT & AIM: NMT) ("Neometals" or "the Company") is pleased to announce the successful completion by Primobius GmbH ("Primobius") of the ECS for the Hub part (component) of a 21,000 tonnes per annum ("tpa") fully integrated LiB recycling plant.

Primobius is the joint venture company owned 50:50 by Neometals and SMS group GmbH ("SMS") that is commercialising proprietary LiB recycling technology originally developed by Neometals ("Recycling Technology").

The Hub is designed to process 12,000tpa of concentrate comprised of the anode and cathode materials ("Black Mass") arising from the processing of 21,000tpa of LiB modules and cells in the Spoke.

The Hub can process cells and modules in multiple formats (i.e. pouches, prismatics and cylindricals) and cathode chemistries (NMC, NCA and LCO) from electric vehicle and consumer electronic batteries.

Highlights

- Successful completion of the Engineering Cost Study (“ECS”) for the hydrometallurgical refinery (‘Hub’) section of a 21,000tpa (~50tpd) Primobius lithium-ion battery (“LiB”) recycling facility;
- The Hub refines “Black Mass”1 produced from Primobius’ shredding (‘Spoke’) plant, producing crystalline nickel, cobalt and lithium products, amongst others, for use in making new LiBs;
- Hub ECS total capital costs of €274M (including 15% contingency) and annual operating cost of €56M have been estimated to +/-25% accuracy;
- Fully integrated Spoke2 and Hub capital cost are estimated at €377M3, with annual operating costs estimated at €83M3 or €3,9733 per tonne of LiB fed into the Spoke per annum;
- Lithium product is the largest revenue stream and expected to be lowest cost quartile; and
- Hub ECS completion allows Primobius to demonstrate the economics of its integrated LiB recycling plant packages to existing customers, partners and new customers.

Neometals Managing Director Chris Reed said:

“Successful completion of the Hub ECS enables our current and future customers and partners to quantify the economic benefits of Primobius’ sustainable “closed loop” LiB recycling plants.

“Primobius is expeditiously advancing towards product readiness for its ~50tpd recycling plants and is anticipating our maiden plant award this quarter from Mercedes Benz for an integrated 10tpd plant.

“Primobius’ primary business model is for the sale of recycling plants under technology licensing agreements to generate a portfolio of battery material royalties.

“We retain the flexibility to enter into joint ventures where a customer also requires operation and maintenance services and can also provide complete “closed loop”
recycling as a service through our current Hilchenbach operation or a new dedicated plant.”

To read the full news release, please click HERE

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If you need clarification of any information contained in this note, or have any questions, I will be delighted to assist – Please email andrew@city-investors-circle.com

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Disclosure

At the time of writing the author holds no shares in **Neometals**

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Neometals' Primobius Positive Update

Neometals Ltd (ASX / AIM: NMT)

Provided an update on the activities of Primobius GmbH, the joint venture company owned 50:50 by Neometals and SMS group GmbH, that is commercialising its lithium-ion battery recycling technology.

Primobius Werkstatt Hilchenbach Plant, Germany

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Neometals Primobius Update

Neometals Ltd (ASX / AIM: NMT) ("Neometals" or "the Company"), is pleased to provide an update on the activities of Primobius GmbH ("Primobius"), the joint venture company owned 50:50 by Neometals and SMS group GmbH, that is commercialising its lithium-ion battery ("LIB") recycling technology ("LIB Recycling Technology").

Primobius completed three LIB recycling Hub demonstration trials of its process improvements during the period December 2022 to March 2023 on electric vehicle battery modules that were shredded in the Hilchenbach LiB disposal facility.

Metallurgical data from the trials is now being analysed and incorporated
into the engineering cost study for the commercial scale hydrometallurgical refinery ("Hub ECS") section of a proposed 50tpd integrated recycling operation in Kaiserslautern, Germany.

The Hub ECS is expected to be finalised in July 2023 and will complement the front-end shredding Spoke ECS** completed in September 2022.

The success of the latest trials support Primobius' goal of being the first to achieve the proposed recycling recovery requirements in the pending EU Battery Regulations.

These regulations will mandate recycling of all batteries placed on the EU market. Once legislated, authorised recyclers will be required to recover at least 90% of contained nickel, cobalt, and copper by 2026, increasing to 95% in 2030, 35% for lithium in
2026 increasing to 75% by 2030.

Neometals Managing Director Chris Reed said:

“Firstly, I would like to congratulate the SMS group and Neometals teams on an outstanding collaboration to improve the process flowsheet to meet the ambitious new 2030 recovery targets of the EU Battery Regulations.

“The goal post shift from 85% to 95% during the drafting of the legislation was challenging and we are nearly there. We look forward to seeing the benefits of our new lithium recovery process option and step changes in key recoveries across the process in the upcoming Hub ECS results.

“Secondly, I would like to thank our collaboration partner Mercedes-Benz. Together we are working towards the highest-quality plant products, futureproofed to meet the most stringent global regulatory requirements that demand circular supply chains for battery materials. We look forward to finalising the plant supply contracts shortly.”

To read the full news release, please click HERE

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