JOINTLY FUNDED FEASIBILITY STUDY FOR LITHIUM REFINERY

HIGHLIGHTS

- **Feasibility Study commences to further evaluate Neometals/Manikaran Indian lithium refinery**
- **Vendor package design teams, study managers and engineers appointed**
- **Evaluation nameplate capacity doubled to 20,000tpa LiOH to include toll-treatment capability at request of market participants**
- **Opportunity to drive economies of scale and optimise overall capital efficiency by removing lithium carbonate from the proposed product mix**

Project development company, Neometals Ltd (**ASX: NMT**) ("**Neometals**" or "**the Company**"), is pleased to announce that its lithium refining collaboration with Indian company, Manikaran Power Limited ("**Manikaran**"), has progressed with the commencement of a jointly-funded AACE Class 3 Feasibility Study ("**FS**"). The FS will evaluate a lithium hydroxide refinery located in India with a nameplate capacity of a nominal 20,000 tonnes per annum of lithium hydroxide ("**LiOH**"). In addition, the originally planned lithium carbonate co-product stream has been eliminated, offering scope for significant economies of scale from the expanded output and overall capital efficiency gains arising from a simplified flowsheet and process plant.

The companies have appointed Primero Group ("**Primero**") to manage the engineering study and key vendor package integration, supported by Sichuan Calciner Technologies ("**SCT**") to design and estimate the pyrometallurgical process package and Veolia HPD to design and estimate the hydrometallurgical process package. SCT will also conduct calcine testing on the Mt Marion spodumene concentrate feed, noting that Mt Marion concentrates have been successfully calcined in China for more than 3 years by Ganfeng Lithium.

In mid-2019, Neometals entered-into a binding memorandum of understanding ("**MOU**") with Manikaran to jointly fund evaluation towards developing the first lithium refinery in India ("**Lithium Refinery**") (*for full details refer to ASX announcement entitled "MOU - Lithium Refinery in India" released on 20 June 2019*). Evaluation activities include, amongst other things, feasibility studies, contractor/equipment provider reviews and site selection. Evaluation activity outcomes will support staged investment decisions to progress towards a 50:50 joint venture ("**JV**") to develop the Lithium Refinery.

Commencement of the FS is significant as it represents a commitment from both parties to advance the evaluation to a higher level of accuracy and detail and to jointly fund costs associated with the FS (Neometals contribution to the FS out to 31 March 2021 is estimated to be AU$2 million). The decision to increase the capacity of the Lithium Refinery and simplify the product mix is in response to feedback from potential offtake customers. Advancement to FS supports Manikaran's conviction to refine lithium chemicals in India and to do so in a manner that is capital efficient and adequately meets growing forecast domestic demand.

The immediate next steps will see the various parties contributing towards this Class 3 study (AACE International Recommended Practice No. 18R-97) which includes further vendor test-work, engineering and the development of capital and operating cost estimates.

For personal use only

ACN 099 116 361
Level 1, 1292 Hay Street
West Perth WA 6005

Locked Bag 8
West Perth WA 6872

T: +61 8 9322 1182
F: +61 8 9321 0556

info@neometals.com.au

Neometals Managing Director Chris Reed said:

"Our conviction in the long-term opportunity for lithium, and indeed for a suite of other lithium battery raw materials, remains very strong. The Lithium Refinery supports Neometals' desire to derive value from its life-of-mine spodumene offtake option at Mt Marion by moving downstream to capture higher value and margins from lithium chemical products.

"In short, the Lithium Refinery represents a strategic low-cost option to produce the key ingredient in the EV battery, timed to deliver into a strong supply shortage mid-decade. Given recent global economic events, the importance of nationalised supply chains is more evident than ever. This is particularly relevant for India with its government target of achieving 100% electric vehicle sales by 2030, despite presently having no domestic lithium chemical production to supply significant planned domestic cathode and LIB cell production capacity."

LITHIUM CHEMICAL MARKET

Despite the immediate market disruption associated with Covid-19, the medium to long term forecast for lithium is for battery sector demand to exert pressure on the lithium supply chain in the middle 2020s. Timing of the lithium refinery evaluation and development timetables is scheduled to deliver the project into a conservatively modelled structural shortage.

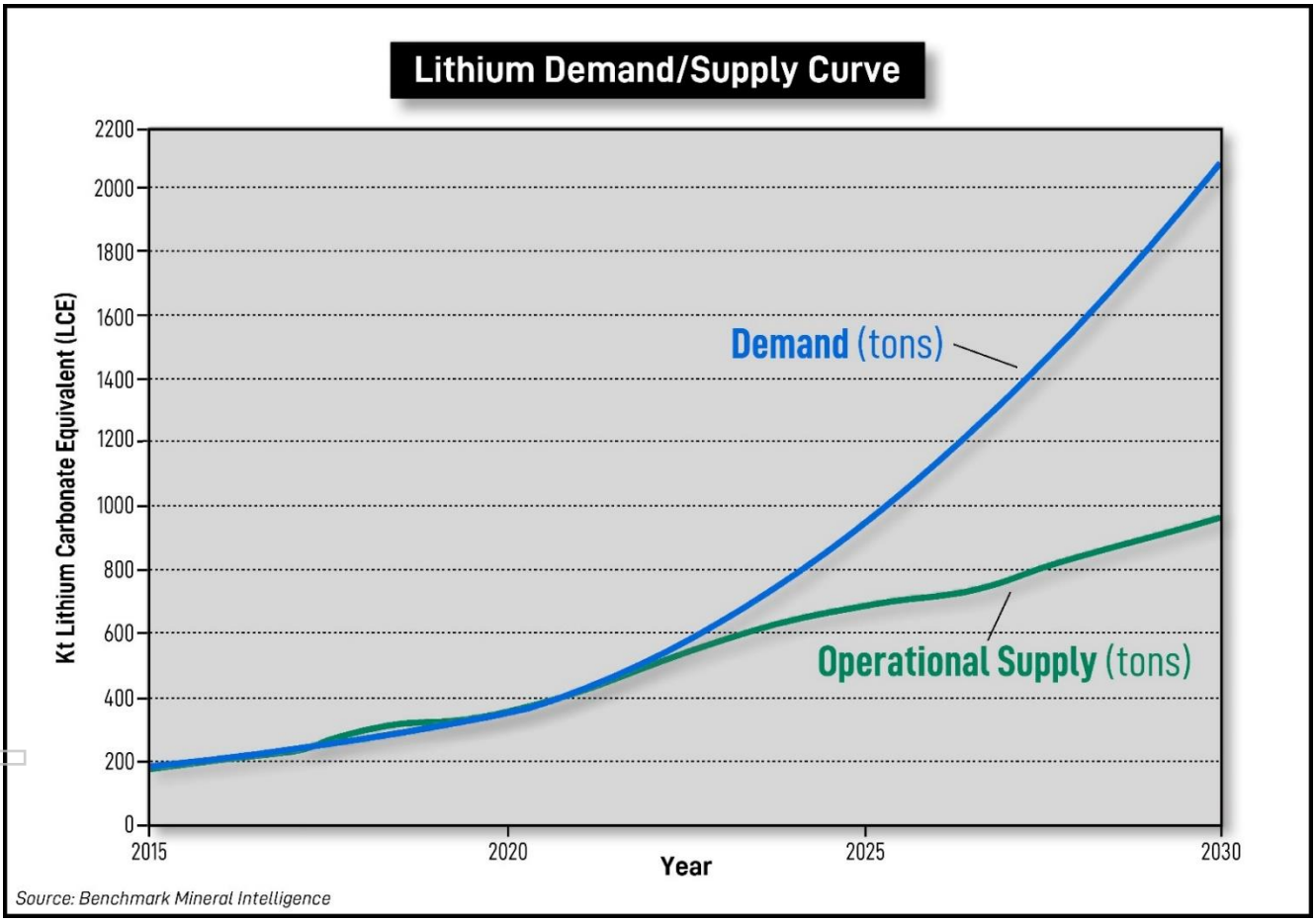

Figure 1 – *Lithium Demand and Supply Curve*

For personal use only

For personal use only

UPDATED STRUCTURE OF MOU/COOPERATION AGREEMENT WITH MANIKARAN

In accordance with the terms of the MOU, Neometals and Manikaran (the Parties) will consider formation of an incorporated 50:50 JV company based on the results of the FS. Provided the project is economically feasible and technically viable, the Parties will consider an investment decision to form a JV company, fund and commence a front-end engineering and design ("**FEED**") study and commence commercial activities related to land, reagent supply, approvals and project financing. See the indicative timeline below for targeted project development steps.

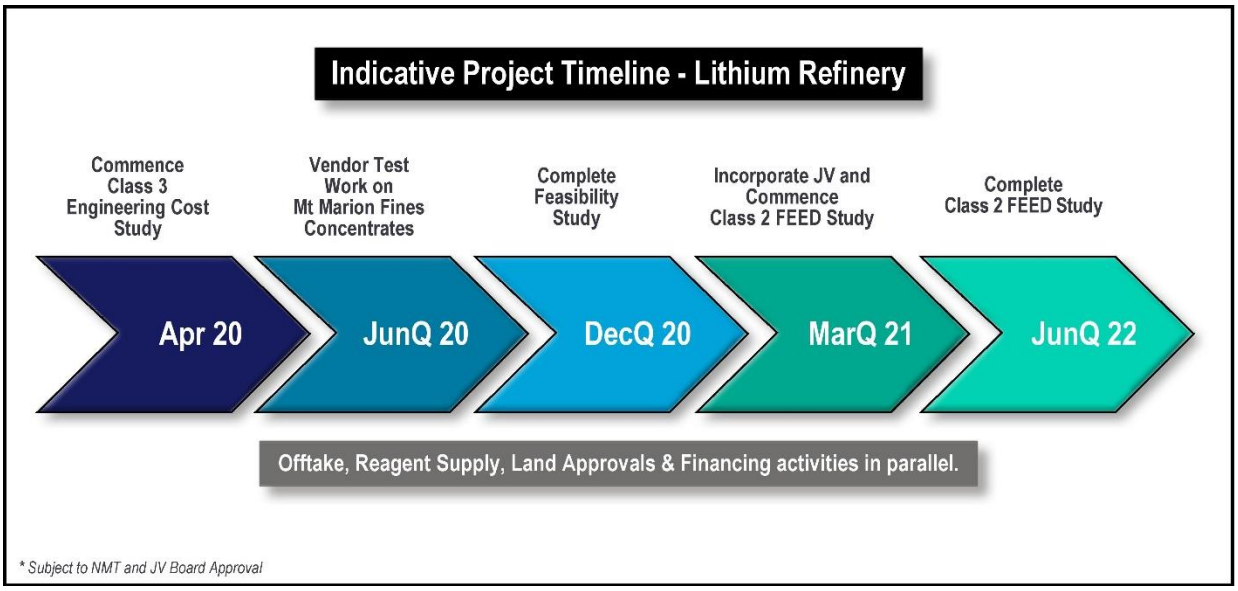

Figure 2 – *Indicative Project Timeline*

ENDS

Authorised on behalf of Neometals by Christopher Reed, Managing Director

For further information, please contact:

Chris Reed
Managing Director
Neometals Ltd
T: +61 8 9322 1182
E: info@neometals.com.au

Jeremy Mcmanus
General Manager - Commercial and IR
Neometals Ltd
T: +61 8 9322 1182
E: jmcmanus@neometals.com.au

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 span the battery value chain:

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-2021 with potential 50:50 JV partner IMUMR.

Downstream Advanced Materials:

- Lithium Refinery Project – evaluating the development of India's first lithium refinery to supply the battery cathode industry with potential 50:50 JV partner Manikaran Power, underpinned by a binding life-of-mine annual offtake option for 57,000 tonnes per annum of Mt Marion 6% spodumene concentrate, working towards a development decision in 2022.

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 potential 50:50 JV partner SMS Group, working towards a development decision in mid-2021; and
- Vanadium Recovery – a 27-month option to evaluate establishing a 50:50 joint venture 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 early 2023.