

Level 3, 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.com.au

Neometals Ltd ACN 099 116 631

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### DOWNSTREAM LITHIUM PROJECTS UPDATE

#### Highlights:

##### Lithium Hydroxide Project

- Secure supply chain based on offtake option rights for Mt Marion production
- Progressing vendor test work in USA, updated cost study report anticipated in February 2018
- Evaluating FEED Study proposals, to follow test study report
- Progressed project partner evaluation through detailed discussions

##### Lithium Battery Recycling Project

- Construction of pilot plant facility in Canada nearing completion
- Wet Commissioning commenced
- Pilot operation on NMC/NCA batteries scheduled January-March 2018, including testing EV pack provided by leading carmaker
- Engineering Cost Study scheduled to follow pilot testing

##### Lithium Titanate Research Project

- Optimisation test work for lithium titanate (“LTO”) completed by CSIRO
- Product from the optimisation has been sent for testing in USA.

Neometals Ltd (ASX: NMT) (“Neometals”) is pleased to provide an update regarding the Company’s integrated lithium supply chain strategy leveraging the energy storage revolution for automotive and grid storage applications.

Since the successful development of the Mt Marion Lithium Project near Kalgoorlie, Neometals has focussed on developing its various value-adding technologies for the integration from raw materials (spodumene concentrates, Mt Marion Mine) to high purity compounds (WA Lithium Hydroxide Project) to battery anode material (lithium titanate – LTO) and end of life recovery of compounds from batteries (Battery Recycling).

All the right elements



Neometals Managing Director Chris Reed stated: “2017 has been a successful year for the Company and has seen us advance our strategy to maximise the value of our future lithium offtake through downstream processing and battery recycling. We are engaged in discussions with parties across the entire lithium battery supply chain to commercialise our downstream projects and confident of delivering on our strategy to partner with strong industry players.”

**VALUE-ADDING STRATEGY**

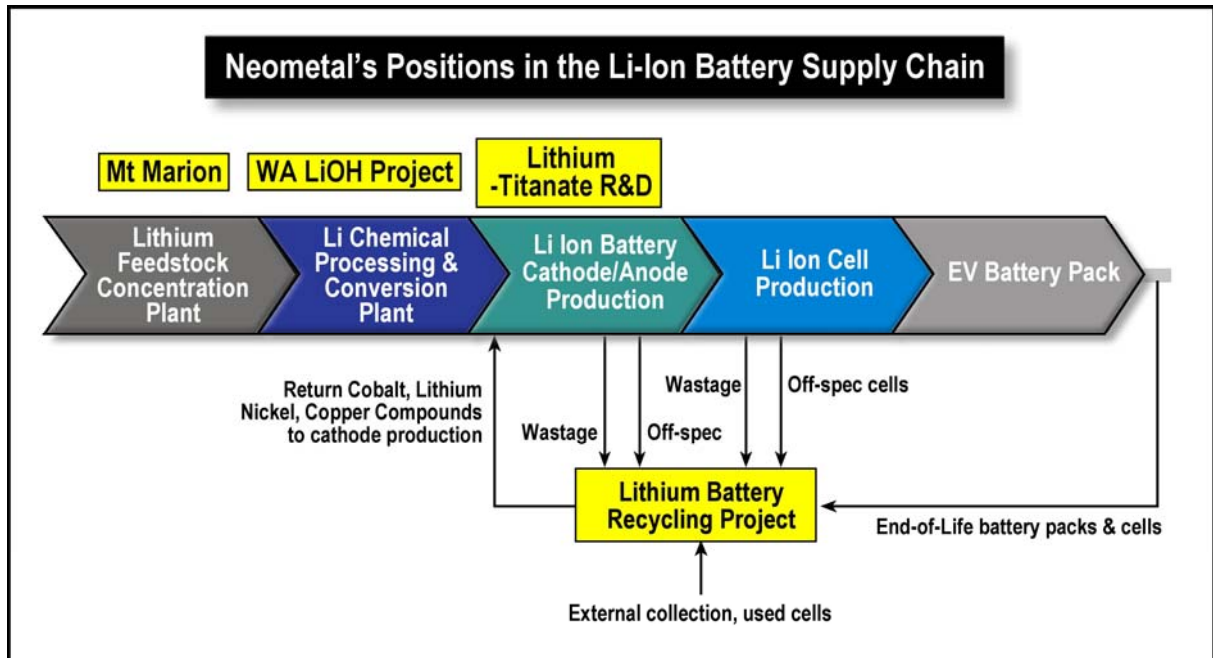


Figure 1: Schematic of Neometals’ positions in the lithium ion battery supply chain



Figure 2: Downstream processing maximises the value of a lithium unit

All the right elements

### Lithium market

Lithium prices are at historically high levels due to sustained strong demand growth driven by electric vehicles and energy storage markets which are challenging supply capacity. The market demand is forecast to grow significantly through to 2025 and is likely to continue to challenge supply capacity. This growth has stimulated construction of new processing capacity, particularly in hard rock conversion in China. The schematic in Figure 3 depicts the forecast overall demand for lithium since the start of this decade and out to 2025.

The current median price for battery-grade lithium hydroxide is approximately USD18,000/t, on a CIF basis to Europe and US (source: Industrial Minerals, 29 November 2017).

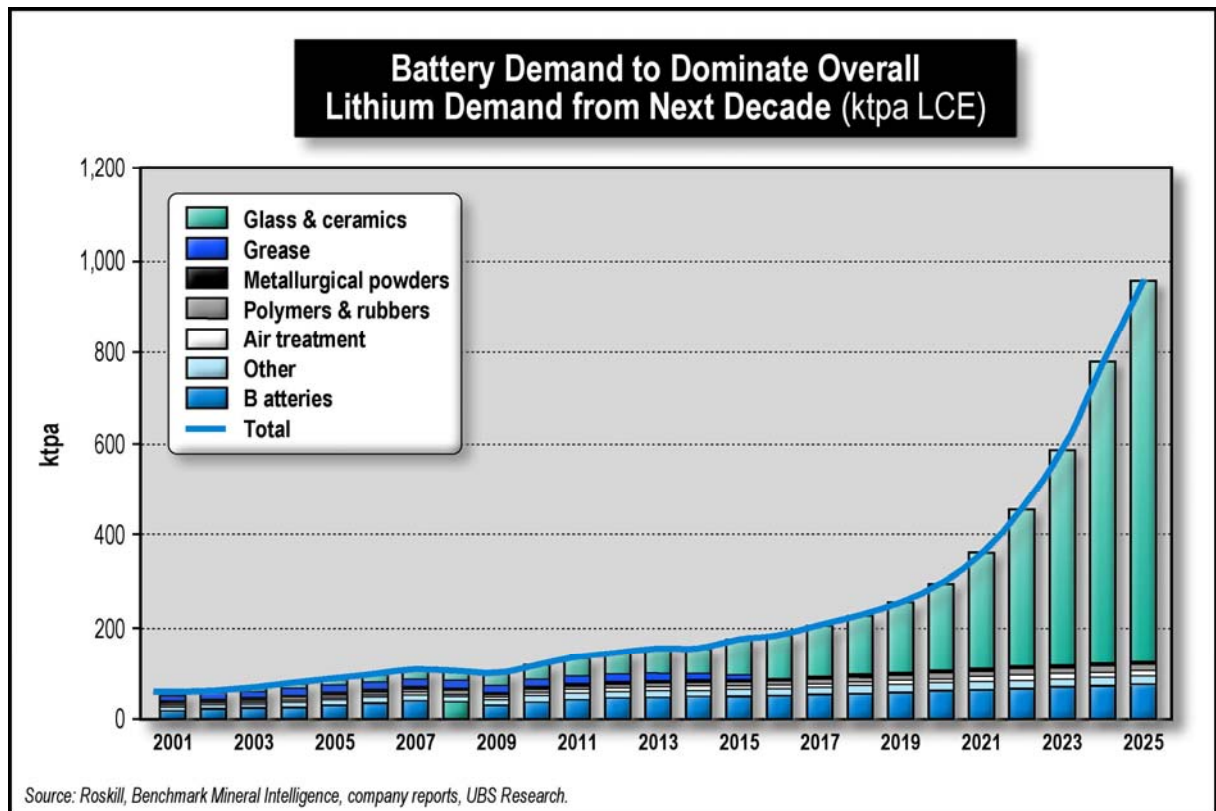
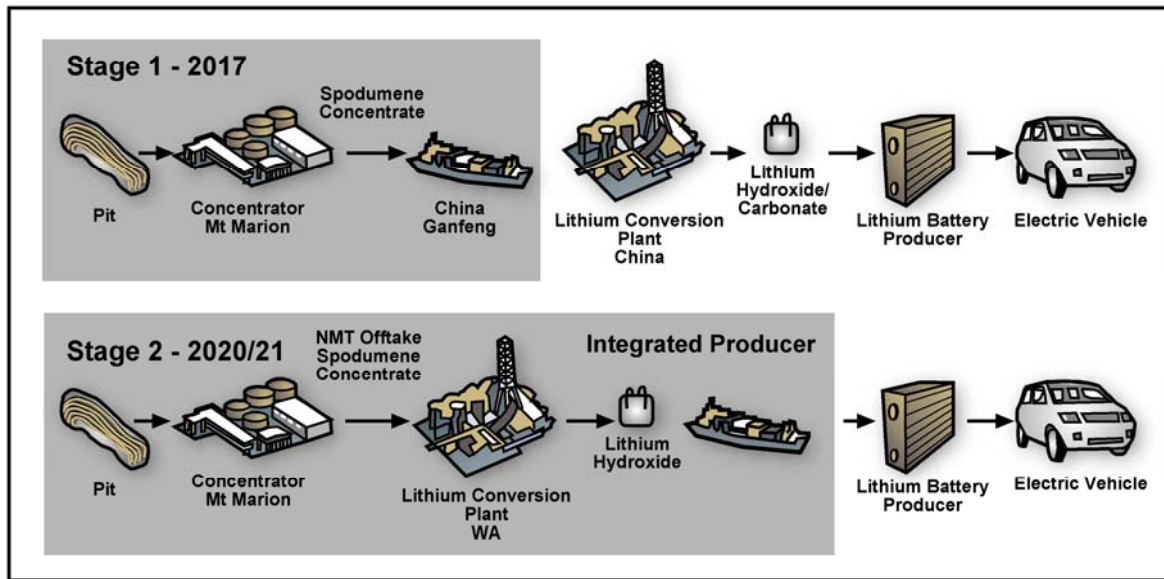


Figure 3: Lithium Demand by application

### WA LITHIUM HYDROXIDE PROJECT (Neometals 100%)

The Company has binding offtake option rights for a minimum of 12.37% of production from Mt Marion from February 2020, which will provide a secure supply of feedstock at the Company’s discretion, to support the development of the secure supply chain to integrated production (see Figure 4).

## Mt Marion Integrated Strategy



**Figure 4:** Schematic of the WA Lithium Hydroxide Project integration

The Company has been progressing the assessment and development of a lithium processing facility near Kalgoorlie, close to its Mt Marion Lithium Operation. Kwinana is also being investigated as a potential site.

Vendor equipment and metallurgical test work is in progress in North America and progress results have been positive and in line with expectations. Work is developing on the flow sheet design, process design criteria (PDC) and mass balance basis for the forthcoming Front End Engineering Design (FEED) Study.

The report from this test work is scheduled for delivery in mid-February 2018. Subject to the evaluation of the test work, it is the Company's intention to proceed with the FEED Study to complete the technical and economic evaluation of a decision to proceed with the construction of a Commercial Plant.

The Company has detailed quotations from two leading EPC/engineering contractors for the proposed FEED Study and expects to make an appointment, subject to Board approval for funding of the study, in Q1 2018. The FEED Study report is expected to be delivered in late 2018 to facilitate an investment decision for the project.

Site selection near Kalgoorlie on industrial land and discussions regarding land tenure and reagent supply have been advanced and the Company will advise the market of any material developments.

The Company is also studying and developing potential alternatives to residue disposal with the objective of offsetting or minimising disposal costs.

The previously-reported search for potential project partners has resulted in detailed discussions with a short-list of significant companies in related OEM industries and the Company will advise the market of any material developments. The high-level development schedule is depicted in Figure 5.



Figure 5: Commercialisation Plan \* Subject to Board Approval \*\* Subject to Final Investment Decision

### LITHIUM BATTERY RECYCLING TECHNOLOGY

(Neometals 100% Commercialisation Rights through Urban Mining Pty Ltd, 50% Ownership in IP)

Neometals is co-developing a technology to economically recover high-value cobalt and other compounds that can be recycled within the battery manufacturing chain. The cobalt supply chain is under stress due to the rapid increase in demand from battery manufacturing and a supply chain that is dominated by co-production in high sovereign risk locations. Currently less than 5% of used lithium-ion batteries are recycled as disposal is typically either paid-for recycling or landfill.

The Company's team has completed most of the fabrication and construction of a 100kg/day mini-max pilot plant in Montreal. Commissioning of the first sections of the plant has commenced and campaigns to process the major commercial battery chemistries will commence in Q1 2018. The pilot plant will also test batteries supplied by consumer electronics manufacturers and car makers.

A schematic of the battery recycling pilot plant is in Figure 6.

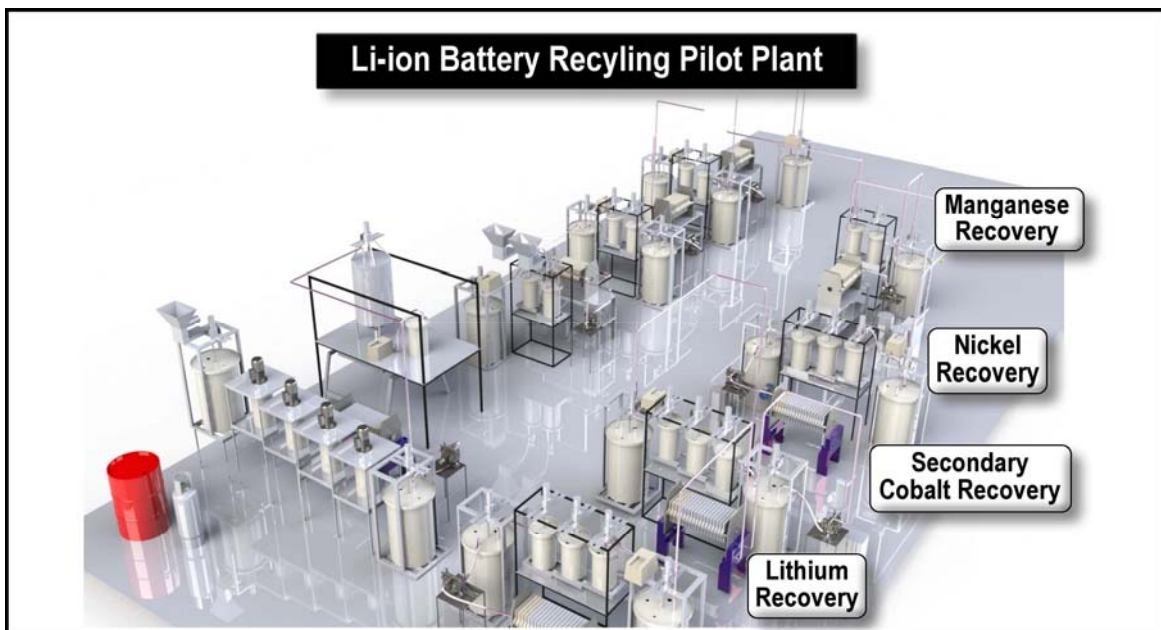


Figure 6: Pilot Plant layout.

### Next Steps

Subject to the success of the test work, it is the Company's intention to proceed with an Engineering Cost Study ( $\pm 15\%$  accuracy) based on the flowsheet that has been developed from the pilot tests. The Engineering Cost Study will enable the Company to complete the technical and economic evaluation that is anticipated to lead to a decision to proceed with the construction of a 10t/day Commercial Plant.

Neometals has internal financial resources with which to fund evaluation, construction and commissioning of the commercial-scale plant. Neometals has advanced discussions with a number of interested parties from the lithium battery supply chain.

### LITHIUM TITANATE RESEARCH PROJECT (Neometals 100%)

The Company has applied for a provisional patent to obtain protection of the IP and has subsequently conducted testing through CSIRO to optimise the production process. A leading US test facility has been engaged to perform testing of pouch cell batteries using Lithium Titanate ("LTO") anode material (in a cell with NMC cathode material) made by the Company at the CSIRO. The results of these tests are expected in January 2018.

Lithium Titanate is an anode (negative electrode) material, which can replace graphite. The primary advantage over graphite is the surface area of the anode of LTO being around 100 square metres per gram in contrast to typically 3 square metres for graphite.

The conceptual plan is to develop a process producing a superior Lithium Titanate anode material from feedstocks (generated from the Company's future lithium hydroxide production) to add value to its materials.

### Next Steps

The Company plans to commence discussions with potential commercialisation partners once it has the test results.



(\*) Subject to Board Approval

Figure 7: LTO Research and Development Plan



**ENDS**

For further information, please contact:

**Chris Reed**

Managing Director

Neometals Ltd

T: +61 8 9322 1182

E: [info@neometals.com.au](mailto:info@neometals.com.au)

**Media**

Michael Weir / Cameron Gilenko

Citadel MAGNUS

T: +61 8 6160 4900