



Altech Chemicals
Limited

ASX ANNOUNCEMENT AND MEDIA RELEASE

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ALTECH – PRE-FEASIBILITY STUDY PROGRESS SITE FOR R&D ACTIVITIES SECURED

Highlights

- Pre-feasibility study is progressing as planned
- Potential suppliers for the utilities and raw materials identified
- Input pricing for the plant operating costs determined
- Potential suppliers of electrical infrastructure, piping and construction services identified
- Office space plus research and development site secured
- Option to purchase Schwarze Pumpe industrial land extended by 12-months

Altech Chemicals Limited (Altech/the Company) (ASX: ATC) (FRA: A3Y) is pleased to provide an update on the progress of the pre-feasibility study (PFS) for construction of a battery materials high purity alumina coating plant in Saxony, Germany. The PFS is being carried out by Altech's 75% owned German subsidiary, Altech Industries Germany GmbH (AIG).

PFS work is progressing rapidly and as planned. The following activities have now been completed:

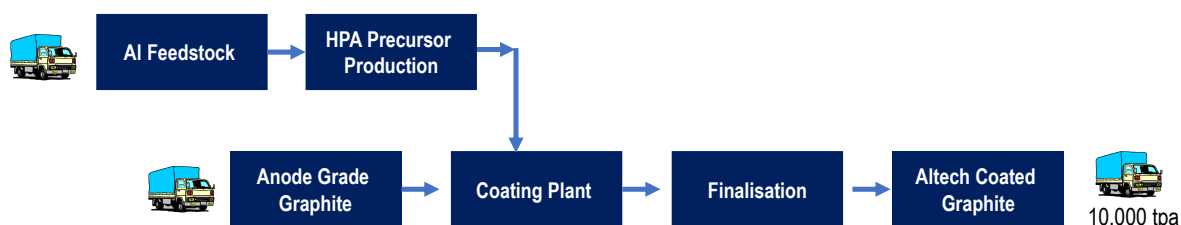
- A due diligence review of the existing environmental and site conditions at the proposed Schwarze Pumpe site by a local environmental consultant. The review confirmed the suitability of the site for plant development with no issues identified. The German consultant outlined the requirements for plant permitting, and the applicable environmental regulations which the plant will be designed to meet. All requirements are as expected and as such are not anticipated to present any difficulties to satisfy during plant design.
- Potential suppliers for utilities and raw materials have been identified and input pricing for these and other key plant operating costs have been obtained.
- An assessment of the local labour market and the related employee remuneration and on-costs has been completed.
- Electrical infrastructure, piping materials and potential construction services suppliers have been short-listed and commissioned to provide proposals. In addition, discussions have commenced with numerous potential process equipment suppliers to determine pricing and supply lead times.

Battery Materials Coating

The battery material coating process consists of four stages (see Figure 1). Stage 1 is a HPA precursor production step using an alternative aluminium feedstock. For the PFS it will be assumed that the HPA precursor would ultimately be supplied from Altech's HPA plant in Johor, Malaysia once operational. The option for an alternate initial precursor supply would allow the coating plant to have a development timeframe that is independent of Johor.

Stage 2 of the process is the receipt of the anode battery material (graphite or silicon) in bulk bags or drums. The next step is the HPA nano layer coating process which will take place in the coating section of the plant – this is the proprietary technology that Altech has developed. The last stage in the process is finalisation of the coated material, which is then packaged in either bulk bags or drums for shipment to end users.

Figure 1 – Battery materials coating plant train block flow diagram



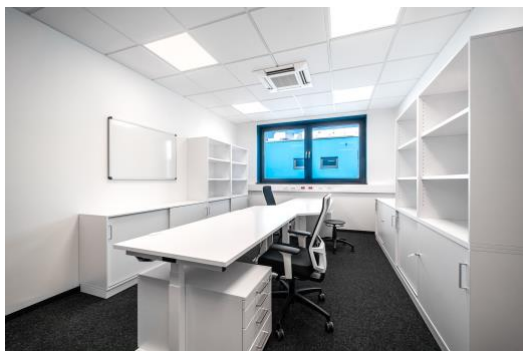
The lay-out of the proposed coating plant at the proposed site, the Schwarze Pumpe Industrial Park in Saxony, Germany will be such that it would allow for the construction of additional materials coating capacity in the future, such as a silicon coating plant and/or additional graphite coating capacity. The PFS will assume the use of 100% renewable power from the local grid with some minor on-site solar generation for buildings. The design will target green project status. It is planned that once the PFS is completed, the project will be assessed for green accreditation by the Centre of International Climate and Environmental Research (CICERO), Norway.

Site for R&D activities secured at the Schwarze Pumpe Industrial Park

AIG recently secured office space at the Schwarze Pumpe Industrial Park (via a 3-year lease), plus AIG has rented 2 bays within a 12 bay warehouse that is adjoining the office space, where it intends to conduct various battery materials research and development activities. The office and proposed R&D site are located immediately next to the ~14 hectare site at Schwarze Pumpe that AIG has an option to acquire, and where a battery materials coating plant would be located – subject to the outcome of the current PFS and a definitive feasibility study. The office and proposed R&D site will have sufficient space for feasibility, testing and engineering work to be carried out. Also, any future potential pilot or demonstration plant for battery materials coating could be accommodated within the R&D site.



Figure 2 – Location of AIG's office and warehouse bays, and the ~14Ha industrial site



AIG's office space



Warehouse bays located adjacent to the office space



Front of AIG's industrial site



Internal roadway accessing AIG's industrial site

Extension of option to purchase site agreement

AIG executed an option to purchase agreement for a ~14 hectare industrial site within the Schwarze Pumpe Industrial Park, municipality of Spreetal, Saxony in June 2020. The agreement provides AIG with an initial 12-month term during which it can exercise its purchase option, with the ability to extend the option period for a further 12-months via mutual consent. Both parties have now agreed to extend the option period by a further 12-months.

Altech's managing director, Iggy Tan said *"Progress on the pre-feasibility study is progress well and meeting all expectations. We are very pleased with the support and encouragement for the study and AIG's proposed activities that has been received from the Schwarze Pumpe Industrial Park management and the local municipality of Spreetal"* he said.

– end –

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About Altech Chemicals (ASX:ATC) (FRA:A3Y)

Altech Chemicals Limited (Altech/the Company) is aiming to become one of the world's leading suppliers of 99.99% (4N) high purity alumina (Al₂O₃) through the construction and operation of a 4,500tpa high purity alumina (HPA) processing plant at Johor, Malaysia. Feedstock for the plant will be sourced from the Company's 100%-owned kaolin deposit at Meckering, Western Australia and shipped to Malaysia.

HPA is a high-value, high margin and highly demanded product as it is the critical ingredient required for the production of synthetic sapphire. Synthetic sapphire is used in the manufacture of substrates for LED lights, semiconductor wafers used in the electronics industry, and scratch-resistant sapphire glass used for wristwatch faces, optical windows and smartphone components. Increasingly HPA is used by lithium-ion battery manufacturers as the coating on the battery's separator, which improves performance, longevity and safety of the battery. With global HPA demand approximately 19,000t (2018), it is estimated that this demand will grow at a compound annual growth rate (CAGR) of 30% (2018-2028); by 2028 HPA market demand is forecast to be approximately 272,000t, driven by the increasing adoption of LEDs worldwide as well as the demand for HPA by lithium-ion battery manufacturers to serve the surging electric vehicle market.



German engineering firm SMS group GmbH (SMS) is the appointed EPC contractor for construction of Altech's Malaysian HPA plant. SMS has provided a USD280 million fixed price turnkey contract and has proposed clear and concise guarantees to Altech for plant throughput and completion. Altech has executed an off-take sales arrangement with Mitsubishi Corporation's Australian subsidiary, Mitsubishi Australia Ltd (Mitsubishi) covering the first 10-years of HPA production from the plant.

Conservative (bank case) cash flow modelling of the project shows a pre-tax net present value of USD505.6million at a discount rate of 7.5%. The Project generates annual average net free cash of ~USD76million at full production (allowing for sustaining capital and before debt servicing and tax), with an attractive margin on HPA sales of ~63%. (Refer to ASX Announcement "Positive Final Investment Decision Study for 4,500TPA HPA project" dated 23 October 2017 for complete details. The Company confirms that as at the date of this announcement there are no material changes to the key assumptions adopted in the study).

The Company has been successful in securing senior project debt finance of USD190 million from German government owned KfW IPEX-Bank as senior lender. Altech has also mandated Macquarie Bank (Macquarie) as the preferred mezzanine lender for the project. The indicative and non-binding mezzanine debt term sheet (progressing through due diligence) is for a facility amount of up to USD90 million. To maintain project momentum during the period leading up to financial close, Altech has raised ~A\$39 million in the last 24 months to fund the commencement of Stage 1 and 2 of the plant's construction; Stage 1 construction commenced in February 2019 with Stage 2 early works completed at the end of June 2020.

Forward-looking Statements

This announcement contains forward-looking statements which are identified by words such as 'anticipates', 'forecasts', 'may', 'will', 'could', 'believes', 'estimates', 'targets', 'expects', 'plan' or 'intends' and other similar words that involve risks and uncertainties. Indications of, and guidelines or outlook on, future earnings, distributions or financial position or performance and targets, estimates and assumptions in respect of production, prices, operating costs, results, capital expenditures, reserves and resources are also forward-looking statements. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions and estimates regarding future events and actions that, while considered reasonable as at the date of this announcement and are expected to take place, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the directors and management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and readers are cautioned not to place undue reliance on these forward-looking statements. These forward-looking statements are subject to various risk factors that could cause actual events or results to differ materially from the events or results estimated, expressed or anticipated in these statements.