



28 January 2020

## **HPA PLANT CONSTRUCTION UPDATE JANUARY 2020**

### Highlights

- Electrical substation structure nearing completion, construction ahead of schedule
- Stage 1 and 2 construction nearing 120,000 LTI free hours
- Engineering advancing with 80% of third party engineering of long lead time orders placed

Altech Chemicals Limited (Altech/the Company) (ASX: ATC) (FRA: A3Y) is pleased to provide an update on the current status of construction activities at the Company's high purity alumina (HPA) plant site in Johor, Malaysia.

Construction of the site electrical substation commenced in September 2019, and is progressing ahead of schedule. The superstructure is now nearing completion as shown in Figure 1, with architectural detailing and mechanical fit out expected to commence shortly. The substation design is in accordance with the requirements of the local electricity service provider TNB (Tenaga Nasional Berhad) the largest electricity utility in Malaysia, and all required approvals have been obtained for the structural, mechanical and electrical elements of the facility.

Substation construction is currently expected to be completed by May 2020. After completion and a handover inspection, the substation will be turned over to TNB for inspection by its projects team ahead of switchgear installation which will take place in parallel with the balance of HPA plant construction, to ensure that electricity supply is available well in advance of HPA plant commissioning.

**Figure 1 – Electrical substation construction**



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On site, the EPC construction team and its subcontractors have now completed a total of 117,425 lost time injury (LTI) free hours. The Stage 1 and 2 activities have seen a total of 241 employees and contractors inducted onto the construction site, and all works have been conducted with no first aid or medical treatment cases.

Stage 2 engineering activities continue to progress, with SMS group GmbH (SMS) now having placed orders with approximately 80% of the third party engineering long lead item vendors for completion of their vendor engineering packages. SMS has also continued to work on completion of equipment arrangement drawings, piping and electrical layouts using the latest design information provided by these equipment vendors.

**Figure 2 – Electrical substation initial works, December 2019**



**Figure 3 – Electrical substation roof construction, early January 2020**



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*Wir sprechen Deutsch.*

**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 (Al<sub>2</sub>O<sub>3</sub>) 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 now underway.

Altech recently announced the sale of an option to Frankfurt stock exchange listed Youbisheng Green Paper AG (since renamed Altech Advanced Materials AG (AAM)), whereby AAM can acquire up to a 49% interest in Altech's HPA project for USD100 million. AAM has commenced the process of securing the funds to enable it to exercise its option, which once complete is anticipated would be a catalyst for project financial close.

**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.