

18 October 2016

## ALTECH MAKING SOLID PROGRESS WITH HPA PROJECT

### Highlights

- HPA project due diligence nearing completion
- No fatal flaws identified
- Detailed design progressing as planned
- Permitting for Malaysian HPA plant construction commenced

Altech Chemicals Limited (Altech/the Company) (ASX: ATC) is pleased to provide an update on its HPA project, which comprises the proposed construction of a 4,000tpa high purity alumina (HPA) plant at Johor, Malaysia and a kaolin quarry and container loading facility at Meckering, Western Australia (the Project).

### Debt Financing

Since January 2016, Altech has been working exclusively with German government owned KfW IPEX-Bank on project finance structuring. The Company is currently targeting US\$70 million of project debt, US\$60 million of which is aimed to be subject to German export credit cover (ECA), typically offered at attractive interest rates and terms. The remaining US\$10 million will be on normal commercial loan terms.

On 10 August 2016, due diligence consultants were appointed by Altech and KfW IPEX-Bank to undertake a definitive technical, market, and legal review of the Project, with an independent “expert opinion” presented at the conclusion of the review. The appointments followed the positive pre-assessment of the Project by the German government inter-ministerial committee and the German export credit agency Euler Hermes Aktiengesellschaft (Euler Hermes) (announced on 3 August 2016).

On 24 August 2016, the Company announced that it had received indicative loan terms and conditions from KfW-IPEX Bank for a US\$70 million facility, confirming the banks intention to provide the entire project debt amount. The facility terms and conditions are being discussed, are not binding on either party and remain subject to the approval of KfW IPEX-Bank and Euler Hermes.

### Due Diligence Work

The appointed due diligence consultants completed site visits to Meckering, Fremantle and Perth, Western Australia and to Johor, Malaysia in early August 2016. Due diligence work included detailed and extensive reviews of the Company’s Bankable Feasibility Study (BFS) and the supporting technical, market and legal reports and data. The various consultants have now submitted their respective draft reports – none of which have identified any fatal flaws in the Project.

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Due diligence work is now focussed on addressing outstanding items and finalising draft reports in preparation for submission to KfW IPEX-Bank and Euler Hermes.

Representatives from Altech, KfW IPEX-Bank and Euler Hermes will meet executives of Mitsubishi Corporation in Japan in early November 2016 for detailed discussions on the 10 year HPA off-take arrangement between the Company and Mitsubishi Australia Ltd.

### **Detailed Design**

In parallel with project financing activities, the Company appointed German engineering firm M+W Group as the engineering, procurement and construction (EPC) contractor for the proposed Malaysian HPA plant. Detailed design and engineering work commenced in June 2016 and as announced on 21 September 2016 is advancing as planned.

In order to finalise loan term sheets, a final capital cost amount for the Project (EPC contract values) is required. M+W Group is progressing this work for the HPA plant utilising its German and Singapore divisions, which is expected to continue until mid-2017. In Western Australia, Perth-based Simulus Engineering is finalising EPC contract values for the Meckering container loading facility, which will be completed during the current quarter.

### **Meckering Development**

In preparation for the commencement of mining at its Meckering kaolin deposit (Meckering), Altech announced a maiden Ore Reserve estimate at 1.2 million tonnes @ 30% Al<sub>2</sub>O<sub>3</sub> (alumina)<sup>1</sup> on 11 October 2016. The Ore Reserve at Meckering is more than sufficient to support the proposed HPA processing operation (ore delivery rate of 41,000tpa) for the initial stage 1 mine-life of 30 years.

In conjunction with the Ore Reserve, the Company reported a Mineral Resource estimated at 12.7 million tonnes @ 29.5% Al<sub>2</sub>O<sub>3</sub> (alumina)<sup>1</sup>. The Mineral Resources estimation at Meckering is potentially sufficient to support its proposed HPA production for over 250 years.

### **Johor Development**

In Malaysia, the Company and M+W Group appointed local permitting consultants WKL & Associates (WKL) to prepare the required development order and construction permit applications. WKL will also assist the Company with utility supply applications for electricity, natural gas and water. Altech is also arranging supply contracts for key HPA plant consumables such as hydrochloric acid and lime.

Altech managing director Mr Iggy Tan commented, *“The Company is pleased with the progress of debt financing due diligence. The due diligence work commissioned by KfW IPEX-Bank and Euler Hermes is comprehensive and very detailed and it is reassuring that no fatal flaws in the Project were identified.*

*“As expected and as is always the case, there are some items that the Company will progress in the coming months, but at this stage this is not expected to materially affect the financing timeline. In parallel with the due diligence process, the Company has been very busy progressing detailed design with M+W Group in preparation for ordering long lead time items for the plant. We are extremely pleased with M+W Group’s project team and its progress”,* he concluded.

- Ends-

1. Minus 300 micron (µm) kaolin fraction with a cut-off grade of 25% Al<sub>2</sub>O<sub>3</sub>

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**About Altech Chemicals (ASX: ATC)**

**Altech Chemicals Limited** (Altech/the Company) is aiming to become one of the **world's leading suppliers of 99.99% (4N) high purity alumina (HPA) (Al<sub>2</sub>O<sub>3</sub>)**.

HPA is a high-value, high margin and highly demanded product as it is the critical ingredient required for the production of artificial sapphire. Artificial sapphire is used in the manufacture of substrates for LED lights, semiconductor wafers used in the electronics industry, and scratch-resistant artificial sapphire glass used for wristwatch faces, optical windows and smartphone components. There is no substitute for HPA in the manufacture of artificial sapphire.

Global HPA demand is approximately 25,315tpa (2016) and demand is growing at an annual rate of 16.7% (2016-2024), primarily driven by the growth in worldwide adoption of LEDs. As an energy efficient, longer lasting and lower operating cost form of lighting, LED lighting is replacing the traditional incandescent bulbs.

Current HPA producers use an expensive and highly processed feedstock material such as aluminium metal to produce HPA. Altech has completed a Bankable Feasibility Study (BFS) for the construction and operation of a 4,000tpa HPA plant at Tanjung Langsat, Malaysia. The plant will produce HPA directly from kaolin clay, which will be sourced from the Company's 100%-owned kaolin deposit at Meckering, Western Australia. Altech's production process will employ conventional "off-the-shelf" plant and equipment to extract HPA using a hydrochloric (HCl) acid-based process. Production costs are anticipated to be considerably lower than established HPA producers.

The Company is currently in the process of securing project financing with the aim of commencing project development in Q1-2017.



**Competent Persons Statements – Meckering Kaolin Deposit**

The information in this announcement that relates to Mineral Resources and Ore Reserves is extracted from the report entitled "Maiden Ore Reserve at Altech's Meckering Kaolin Deposit" released on 11 October 2016; the report is available to view on the Company's website [www.altechchemicals.com](http://www.altechchemicals.com). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

**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 our 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.