



16 March 2016

## **ALTECH IMPROVES FINANCIALS OF ITS HPA PROJECT WITH BFS UPDATE**

### **Highlights**

- Updated Bankable Feasibility Study confirms financial robustness of Altech's HPA project
- Improved financials, include:
  - Increased estimated pre-tax NPV<sub>9</sub> of US\$358 million (previously US\$326 million)
  - Higher Internal Rate of Return (IRR) of 33% (previously 30%)
  - Capex US\$78.7 million (was US\$76.9 million)
  - Long-term sale price forecast unchanged at US\$23,000/tonne for 99.99% (4N) product
  - Cost of goods sold slightly higher at US\$9,074/tonne
  - EBITDA of US\$55.7 million per annum at full production

Altech Chemicals Limited (Altech/the Company) (ASX: ATC) is pleased to announce the results of an update to its Bankable Feasibility Study (BFS) for the development of a 4,000tpa high purity alumina (HPA) processing plant at Johor, Malaysia.

### **Background**

Results from the BFS were announced on 29 June 2015 and since then the Company has worked with its various consultants to further refine the study. Key items of work included optimising the process flow sheet, refining equipment selection and pricing, the critical evaluation of key assumptions and operating parameters and an update of key consumables pricing and sourcing. As previously announced, as part of this refinement the beneficiation of alumina rich kaolin from the Company's proposed Meckering mining operation will be in Malaysia, rather than on-site at Meckering, Western Australia as was contemplated in the BFS (refer ASX announcement dated 26 November 2015 for details).

### **Updated BFS**

The financials and technical outcomes from the updated BFS have confirmed the results of the initial BFS.

The updated BFS reports increases in project net present value (NPV) (US\$358<sup>(9)</sup> million Vs US\$326<sup>(10)</sup> million), payback (3.7 years Vs 3.8 years) and an internal rate of return (33.3% Vs 30.3%). Total Capital cost is US\$78.7 million (previously US\$76.9 million), operating costs per kg of finished product at full rate production is now US\$9.07 (was US\$8.14).

The financial and technical outcomes from the updated BFS remain particularly compelling.

The sales price assumption for HPA in the updated BFS is unchanged at US\$23.00 per kg (US\$23,000 per tonne), foreign exchange rate assumptions have been revised to USD:AUD 0.70 for capex (previously 0.78) and USD:AUD 0.80 for opex (was 0.90). The discount rate applied to project cash flows for the 30-year project life is now 9.0% (was 10%), reflecting a lower cost of debt financing because of the Company's intended application for ~US\$40.0 of German export credit finance, from total project debt currently estimated at ~US\$60.0 million (refer ASX announcement dated 10 December 2015 for details).

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Altech's managing director Mr Iggy Tan said, "This updated BFS confirms the financial and technical robustness of the Company's HPA project, as was identified in the original BFS."

"Since the completion of the BFS in June 2015, the various technical consultants have taken time to conduct a detailed review of the entire HPA project, identifying optimisation opportunities, critically reviewing equipment selection, and updating all equipment and operating cost pricing – quite important given the changes that have transpired in the resources industry since the BFS was completed."

"The focus for Altech now is the finalisation of project financing, completion of final design and construction drawings, the formal appointment of the EPC contractor and the subsequent award of various works packages to enable the commencement of construction in early 2017."

### BFS update – Key Financials Results

4,000tpa HPA Project	US\$ (Millions)	
	Updated BFS	Original BFS
Project Capital Costs	78.7	76.9
Revenue p.a.	92.0	92.0
Operating Costs p.a.	36.3	32.6
EBITDA p.a.	55.7	59.4
Net Present Value (@9.0%)	357.5	326.1(at 10%)
Payback	3.7 years	3.8 years
IRR	33.3%	30.3%
NPV/Capex Ratio	4.54	4.24
Gross Margin on sales	61%	65%

### BFS update – Key Assumptions

4,000tpa HPA Project	Updated BFS	Original BFS
Project Life	30 years	30 years
Annual HPA production (at full rate production)	4,000tpa	4,000tpa
USD:AUD (capex & construction)	0.70	0.78
USD:AUD (operations)	0.80	0.90
HPA Sales Price (per kg)	US\$23.00	US\$23.00
Discount Rate	9%	10%

A complete summary of the original BFS is included in the ASX Announcement by the Company dated 29 June 2015, which is also available on the Company's web site [www.altechchemicals.com.au](http://www.altechchemicals.com.au).

All material changes to assumptions from the original BFS are included in this ASX Announcement, or those ASX Announcements referenced in this announcement.

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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)** ( $Al_2O_3$ ).

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 19,040tpa (2014) and demand is growing at an annual rate of 28%, 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. HPA demand is expected to at least double over the coming decade.

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.



**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.

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