

ASX ANNOUNCEMENT AND MEDIA RELEASE

18 September 2019

ALTECH – INVITATION RECEIVED TO CONSIDER NEXT HPA PLANT IN EAST GERMANY

Highlights

- Invitation received from Saxony State Government, Germany
- Schwarze Pumpe Industrial Area suggested as location for 2nd Altech HPA plant
- Various government grants may be available
- · Focus remains on funding and construction of Altech's first HPA plant in Johor, Malaysia
- Forecast near-term HPA supply deficit presents opportunity to plan for a 2nd HPA plant

Altech Chemicals Limited (Altech/the Company) (ASX: ATC) (FRA: A3Y) is pleased to announce that it has received an invitation letter from the state government of Saxony, Germany, proposing that Altech consider the construction of a second high purity alumina (HPA) plant in the state.

In the letter, the state government of Saxony led by Minister-President, Mr Michael Kretschmer proposed to

Altech that it should consider locating its next HPA plant in the industrial area of Schwarze Pumpe, which is located 100km north-east of Dresden, Saxony. As HPA is recognised as a critical component in the lithium-ion battery materials supply chain, an Altech HPA plant in Saxony would be well positioned to support the regions push to create a major electric vehicle battery industry, with a secure materials supply chain.

The German state of Saxony is located in the east of the country and borders both the Czech Republic and Poland. Saxony is the sixth most populous of Germany's sixteen states (population ~4 million) and tenth in terms of land area. The automobile industry has again become one of the pillars of Saxon industry, as it was in the early 20th century; the state hosts production sites for Volkswagen, BMW, Porsche and Daimler. Saxony is a leading engineer training



ground and has excellent research facilities like the Fraunhofer Institute for Electronic Nano-systems, which is researching ceramic Nano technology in energy storage (HPA). Saxony's road network counts as the best developed in Germany and rail transport is one of the state's traditional strengths. Three efficient Elbe River inland ports have been developed connecting to the North German seaports and international maritime trade.



Altech Chemicals Limited ASX:ATC ABN 45 125 301 206 Suite 8, 295 Rokeby Road, Subiaco, Western Australia 6008 Australia Altech's German advisers recently met with Minister-President of Saxony, Mr Michael Kretschmer to discuss its invitation. Based on these positive initial discussions, Altech intends to undertake further evaluation, which will include research on various government grants that the Company has been advised may be available in support of the establishment of a HPA plant in eastern Germany.

Whilst the Company remains focused on the close of funding and the construction of its Malaysian HPA plant, it also recognises the forecast significant deficit of HPA supply commencing in 2020 and the opportunity that this may present in terms of a 2nd HPA plant. Specifically, CRU Consulting in its most recent HPA market outlook report, identified a HPA 4N+ supply shortfall of approximately 20,000tpa in 2021 (equivalent to ~4 of Altech's 4,500tpa plants), which it forecast would expand to a shortfall of ~50,000tpa by 2028 (refer ASX Announcement of 3 July 2019 for further details). To this extent, the Company is of the view that there is merit in commencing early stage planning for additional future HPA plants, now. Considering the invitation letter from the Saxony state government and the strong signals from the European Union (EU) on its desire to foster a rapid transition to electric vehicles, and to establish a fully integrated materials supply chain to underpin the transition, the Company's current strategic thinking is for its next HPA plant to be located in Europe.



Photo: Schwarze Pumpe Industrial Park in Saxony, Germany

Altech recognises that Saxony would be well positioned to support Europe's push to create a major electric vehicle (EV) battery industry and associated materials supply chain. Stringent EU 2020 CO₂ emission standards (95g per kilometre) are paving the way for the rapid displacement of internal combustion engine vehicles with EVs. To meet the new standards, European automotive manufacturers have announced plans for new EV model releases – both fully electric and/or hybrids. Also, a range of companies have recently committed to constructing or expanding battery cell plants in the EU, consequently by 2023/24 it is expected that EV battery manufacturing capacity will be 147GWh for the EU and global battery capacity is likely to be greater than 800GWh. Europe has correctly identified risks along the EV supply chain and has outlined the need for regional integration of the battery/EV production process. The current reliance on Asian suppliers has been identified as a concern. Importantly, the EU has a co-ordinated strategy – offering incentives to buyers, setting strict CO₂ emission standards, revealing new grants and subsidies for battery companies to secure production facilities and raw materials within Europe. Volkswagen has publicly stated that it would like to see all of its EV manufacturing supply chain steps established in Europe.



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Photo: Dr Jingyuan Liu (ATC General Manager Operations), Mr Michael Kretschmer (Minister-President of Saxony) & Jens Willenbockel (ATC Consultant)

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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%.

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, it is expected 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 to 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. 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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