



Alpha **HPA**

The Manager Companies - ASX Limited
20 Bridge Street
Sydney NSW 2000

ASX: **A4N**
ASX Announcement
17 November 2022
(3 pages)

HPA FIRST PROJECT UPDATE

SUPPLYING DE-CARBONISATION

STAGE 1 – PPF: NOW COMMISSIONING

- **Water commissioning completed**
- **First reagent deliveries received from Orica**
- **Chemical commissioning commenced**
- **Solvent extraction of aluminium commenced**
- **All plant utilities and common reagent services in operation**

PRODUCT MARKETING

- **HPA delivery to sapphire glass counterparty in the EU**
- **Supply bid prices accepted for HPA to Japan-based chemical company**
- **Further Al-sulphate orders for cathode manufacture**
- **First test orders for new high purity aluminium trihydrate product**
- **Additional sales of Al-nitrate and HPA powders**

The Board of Alpha HPA Limited ('Alpha' or 'the Company') is pleased to provide an update on project activities for its HPA First Project, representing the commercialisation and production of critical high purity aluminium products driving de-carbonisation.

The Company's Stage 1, Precursor Production Facility (PPF) in Gladstone, QLD is now being commissioned.

The Company is concurrently satisfying the remaining conditions precedent to the full-scale Project Final Investment Decision (FID), with a focus on product sales, offtakes and project financing.

STAGE 1 – PPF

First reagent deliveries from Orica

The Stage 1 PPF has successfully received and offloaded the first bulk reagent chemicals from Orica, allowing for commencement of chemical commissioning.

Chemical commissioning commenced

Process chemicals have now been introduced to the plant, including Orica chemicals, solvent extraction chemicals and aluminium feedstock from Rio Tinto.

Aluminium extraction has commenced, with the tenor of extracted aluminium steadily building concentration to enable the commencement of the crystallisation circuit next week.

All plant utilities and common reagent services are now in operation in support of chemical commissioning.

PRODUCT MARKETING

HPA delivery to sapphire glass counterparty in the EU

Alpha has delivered a large (100kg) test sample order of high-density (+3.5 g/cm³), HPA (>99.995%) as sintered tablets to an EU based sapphire growth counterparty as part of final qualification.



Alpha's 100kg – HPA tablet delivery

Supply bid prices accepted for HPA to Japan-based chemical company

Following successful qualification of Alpha's nano-HPA with a Japanese based chemical company which manufactures specialist materials for the LED sector, Alpha has been notified its supply pricing has been accepted and the parties are now moving to sales contract documentation.

Initial product volumes are modest, with an upper 10Mt per annum, however the application is for a premium product, with pricing at the top-end of the Definitive Feasibility Study (DFS) pricing scenarios.

Al-sulphate orders for cathode manufacture

Alpha has received and delivered additional high purity aluminium sulphate test orders for a large lithium-ion cathode manufacturer.

Supply bids submitted for US semiconductor users

Within the last week Alpha has successfully delivered multiple product test orders for high purity boehmite, nano-alumina and high purity aluminium nitrate to end users within the US semi-conductor sector. Each of these products are used in polishing slurries for semi-conductor substrates (CMP polishing).

On request, supply bid pricing has been submitted to a large North American based end-user.

Additional sales of Al-nitrate and HPA powders

The Company has placed further small volume high value sales for Al-Nitrate (6kg @ US\$350/kg) and HPA powder (10kg @ ¥95,000/kg) to research end-users.

These sales are expected to continue and assist in the development of longer-dated research-linked markets.

First test orders for new high purity Al(OH)₃ product

In response to multiple end-user requests, Alpha has now successfully developed a process for the manufacture of a >99.99% (4N) purity aluminium tri-hydrate ('ATH' or Al(OH)₃). The first test order for high purity ATH has been manufactured in Brisbane and will be shipped at end of this week.

Commenting on progress at the Company's Stage 1 facility, Managing Director Rimas Kairaitis said:

"The continued commissioning progress, combined with the expanding product marketing and the deepening relationship with Orica are all working to build exciting momentum for the business."

About the HPA First Project

The Company's HPA First Project represents the commercialisation of the production of high purity alumina (HPA) and related high purity precursor products using the Company's proprietary licenced solvent extraction and HPA refining technology. The disruptive, low-carbon process technology provides for the extraction and purification of aluminium from an industrial feedstock to produce 4N (>99.99% purity) alumina and 5N (>99.999% purity) for sale into the lithium-ion battery and LED lighting industry.

Alpha completed a Definitive Feasibility Study in March 2020 following a successful pilot plant campaign in 2019. Alpha has since upscaled its Brisbane facility to demonstration scale and has now recorded over 8,000 operating hours and delivered an expanded range of over 100 high purity product orders to end-users globally.

Alpha is fully funded to the commercial production at its Stage 1, Precursor Production Facility which has now commenced commissioning ahead of commercial production of the Company's high purity Aluminium Precursors in the December quarter 2022.

The Company is now in the mature phases of market outreach and project financing with respect to the full scale HPA First Project, with the expectation of positioning the HPA First Project to Final investment Decision.

For further information, please contact:

Rimas Kairaitis
Managing Director
rkairaitis@alphaHPA.com.au
+61 (0) 408 414 474

Cameron Peacock
Business Development
cpeacock@alphaHPA.com.au
+61 (0) 439 908 732

pjn11461