

Alpha **HPA**

The Manager Companies - ASX Limited  
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ASX: **A4N**  
ASX Announcement  
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(7 pages)

## **HPA FIRST PROJECT UPDATE**

### **SUPPLYING DE-CARBONISATION**

#### **STAGE 1 – PPF**

- **PPF construction on schedule**
- **Main building slab complete**
- **Main building erection commencing next week**
- **Process equipment deliveries continue**

#### **BRISBANE FACILITY**

- **New site for Brisbane facility secured following flood impacts**
- **Re-commencement of precursor production in April**
- **Over 200kg of HPA and precursors retained in stockpile and able to service product orders**

#### **PRODUCT MARKETING**

- **5 further product test orders received**
- **Increase in customer interest to supply sapphire glass market**

#### **STAGE 2 - FULL SCALE PROJECT**

- **\$45M Federal Government grant awarded**
- **Study underway to adopt higher precursor volumes at the HPA First full-scale commercial facility**
- **Lender due diligence advanced**

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.

Alpha is fully funded to commercial production at its Stage 1, Precursor Production Facility (PPF) which is under construction in Gladstone, QLD and scheduled to commence commercial production of the Company's high purity Aluminium Precursors from September quarter 2022.

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

## STAGE 1 - PPF

The Company continues to make good progress on the Stage 1 PPF component of the HPA First Project as detailed below:



*Pouring the eighth and final main PPF building slab*





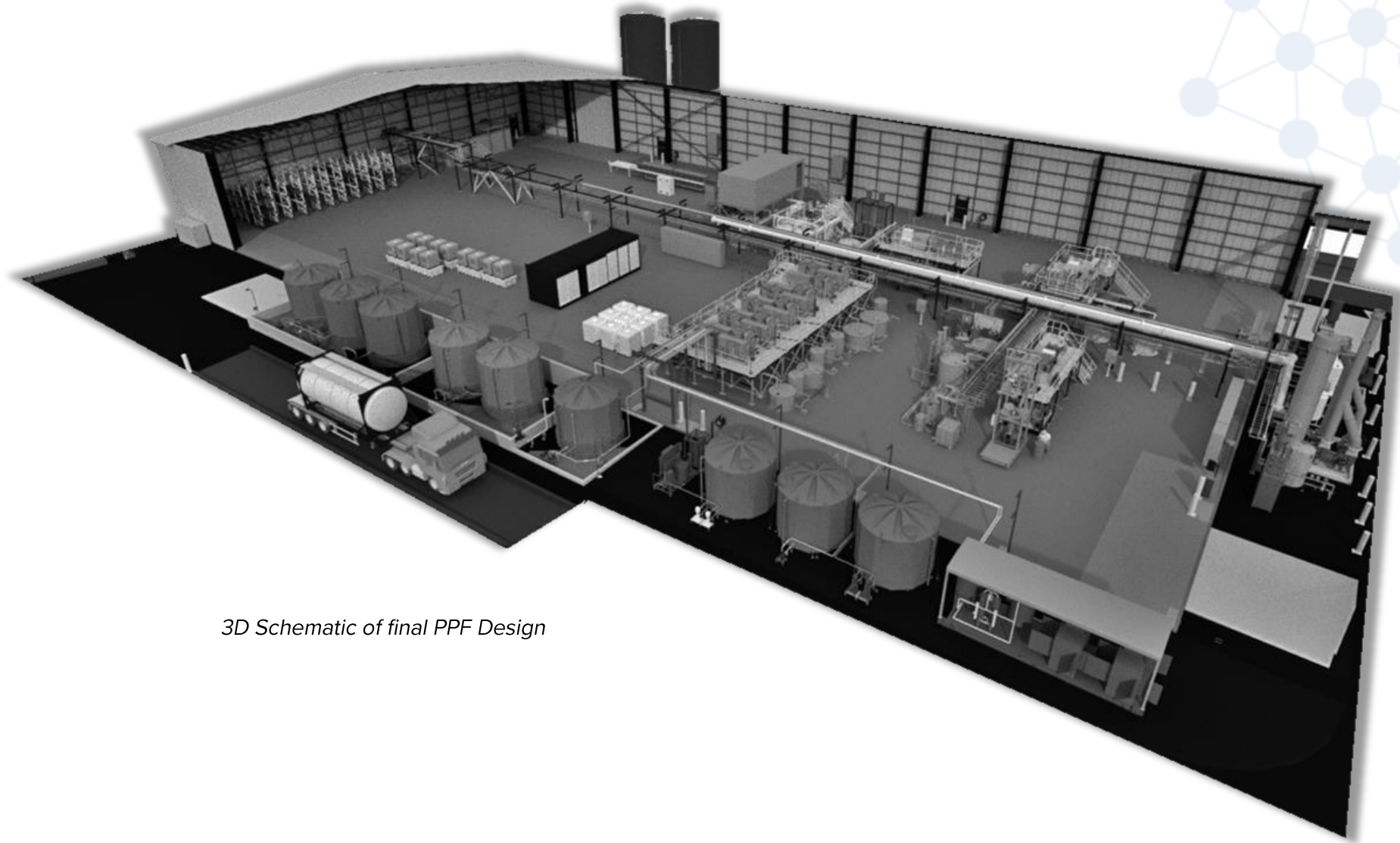
*Main PPF electrical switchboard complete*



*Completed Solvent Extraction (SX) settler tanks ready for shipping*



*Completed SX mixer tanks ready for shipping*



*3D Schematic of final PPF Design*

## Main Building slab complete

The final concrete pour for the main PPF building slab base has now been completed (*refer image above*). Following curing, the slab will be ready for the commencement of building erection.

## PPF Building erection commencing

Contractors are due to commence main building erection next week. Building steel erection and cladding is scheduled to take approximately 5 weeks to complete.

## Process equipment manufacture on schedule

Fabricators of PPF process equipment continue to complete and deliver to schedule (*refer images above*) ahead of installation into the PPF. There are currently no key equipment items behind schedule.

## Key contracts awarded

Alpha has now awarded the following key contracts for the final assembly of the PPF process equipment:

- Structural, Mechanical and Piping installation (SMP)
- Electrical, Instrumentation and Control (EI&C)

## BRISBANE FACILITY

As per the ASX release dated 1 March 2022, Alpha's Demonstration facility in Brisbane was impacted by the recent Brisbane flooding. The Brisbane facility produces a range of products for end-user qualification testwork, small scale product sales and vendor testwork.

The Company has secured a new premises and is re-locating the facility to the new location over the coming weeks. Alpha is scheduled to recommence manufacturing aluminium precursors at the new site in early April and high purity alumina products in late-April, after receipt of replacement calcination equipment.

Most of the Company's high purity product stockpiles were unaffected, with Alpha currently retaining the following product inventory to service product marketing enquiries:

- 93kg of 5N purity Al-nitrate precursor
- 46kg of 4N+ purity alpha alumina (HPA)
- 33.5kg of 4N+ purity gamma alumina (HPA)
- 65kg of 4N+ purity intermediate products

The new premises will also house Alpha's Brisbane based operations and commercial team.

The majority of the process equipment was either unaffected by the flood or recoverable, however, some items of process equipment were lost will be partially replaced at an estimated cost of approximately \$250,000.



## PRODUCT MARKETING

Alpha maintains an active product marketing program, with a number of engagements now maturing to the commercial stage. In addition, Alpha continues to outreach to new markets and jurisdictions, as well as continuing to receive inbound product test and sales orders.

### HPA Pellets for sapphire glass

Alpha has noted a sharp increase in interest for additional HPA pellet supply to the sapphire glass market, which has been heavily disrupted as a result of Russian targeted sanctions. The sapphire glass market includes a wide range of applications including:

- Sapphire wafer substrates for LED lighting
- Sapphire wafers for premium watches and consumer electronics
- Sapphire windows for smartphone camera lenses and LIDAR

The Company's HPA pellets are already qualified for sapphire glass through to a premium end-user and Alpha is now advancing a range of discussions in this sector.

### Further product test orders

Alpha has received a further 5 product test orders in March. Four of these will be serviced from the existing stockpile with the final order expected to be delivered in late April.

## STAGE 2 – FULL SCALE PROJECT

In parallel with the PPF, the Company maintains a number of workstreams directed at completing the remaining conditions precedent to the full-scale HPA First Project FID:

### \$45M Government grant awarded

As per the ASX release dated 16 March 2022, Alpha has received notification from the Commonwealth Department of Industry, Science, Energy and Resources ('Department of Industry') that its application for grant funding under the Modern Manufacturing Initiative - Collaboration Stream ('MMI-C') has been approved.

The \$45 million grant will be applied toward the capital expenditure of the full-scale HPA First Project.

Alpha was the lead applicant, with the grant application supported by Orica Ltd ('Orica') as joint applicant. The business collaboration between Alpha and Orica forms a key part of the HPA First Project, which leverages off the existing Orica manufacturing facility in Gladstone, QLD. To offset their capital expenditure required to support the HPA First Project, 10% of the grant proceeds will flow to Orica.

The Company will execute a grant agreement with the Department of Industry in due course.

### Lender Due Diligence

Alpha continues to advance due diligence with key lenders. Materials being provided to lenders include:

- Updated HPA Market Report (CRU- January 2022)
- Stage 1 ITE report (Bankers Engineers)
- Environmental & Social (E&S) due diligence report – completed by Bankers Engineer
- Indigenous Engagement Strategy (IES)
- Climate Reporting and Emissions Reductions Strategy
- Legal DD – Lender's legal appointment imminent
- Insurance – Alpha's insurance brokers appointed

### Study underway to adopt higher precursor volumes

Alpha is now completing a revised Project scenario modelling based on a range of updated product mixes informed by the Company's marketing activities. The re-configured Project will include higher volumes of aluminium precursors.

The re-configured HPA First Project product scenarios will form the final basis for Project Financing.

### **About the HPA First Project**

The Company's HPA First Project represents the commercialisation of the production of ~10,000tpa equivalent 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 4,000 operating hours and delivered an expanded range of over 80 high purity product orders to end-users globally.

Alpha is fully funded to the commercial production at its Stage 1, Precursor Production Facility which is scheduled to commence commercial production for the Company's high purity Aluminium Precursors from September 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.

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