Alpha **HPA**

ABN 79 106 879 690

2020 AGM PRESENTATION

HPA FIRST PROJECT

HIGH PURITY ALUMINIUM PRODUCTS FOR THE LOW CARBON LITHIUM-ION BATTERY (LIB) & LED MARKETS

NOVEMBER 2020

Cautionary Statement

The Definitive Feasibility Study (DFS) referred to in this presentation has been undertaken to assess the technical and financial viability of the HPA First project. The DFS is based on the material assumptions about the availability of funding and the pricing received for HPA. While the Company considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the outcomes indicated by this DFS will be achieved. To achieve the range of outcomes indicated in the DFS, additional funding will be required. Investors should note that there is no certainty that the Company will be able to raise the amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares. It is also possible that the Company could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the HPA First project. If it does, this could materially reduce the Company's proportionate ownership of the HPA First project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the DFS.

Forward Looking Statements

The DFS referred to in this presentation contains certain forward-looking statements with respect to the financial condition, results of operations, and business of the Company and certain plans and objectives of the management of the Company. These forward-looking statements involve known and unknown risks, uncertainties and other factors which are subject to change without notice and may involve significant elements of subjective judgement and assumptions as to future events which may or may not occur. Forward-looking statements are provided as a general guide only and there can be no assurance that actual outcomes will not differ materially from these statements. Neither the Company, nor any other person, give any representation, warranty, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statement will actually occur. In particular, those forward-looking statements are subject to significant uncertainties and contingencies, many of which are outside the control of the Company. A number of important factors could cause actual results or performance to differ materially from the forward looking statements. Investors should consider the forward looking statements contained in this DFS in light of those disclosures.

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Corporate Snapshot

Alpha HPA

TRADING INFORMATION

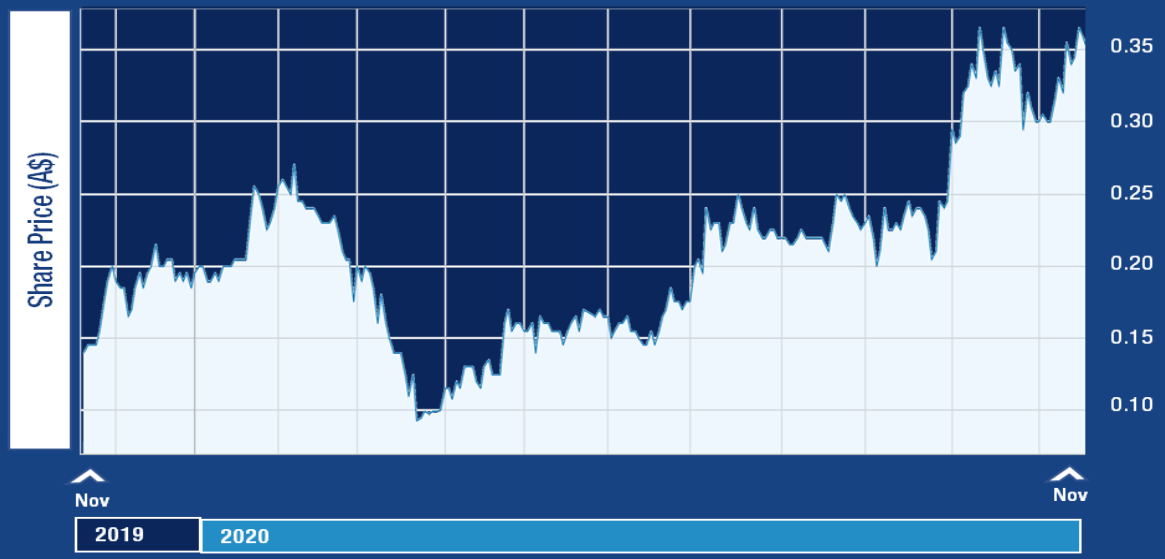
ASX CODE	A4N
Share Price (18-11-2020)	35.0c
52-week trading range	8.6c – 37.5c
Issued Shares	692.4M

CAPITAL STRUCTURE

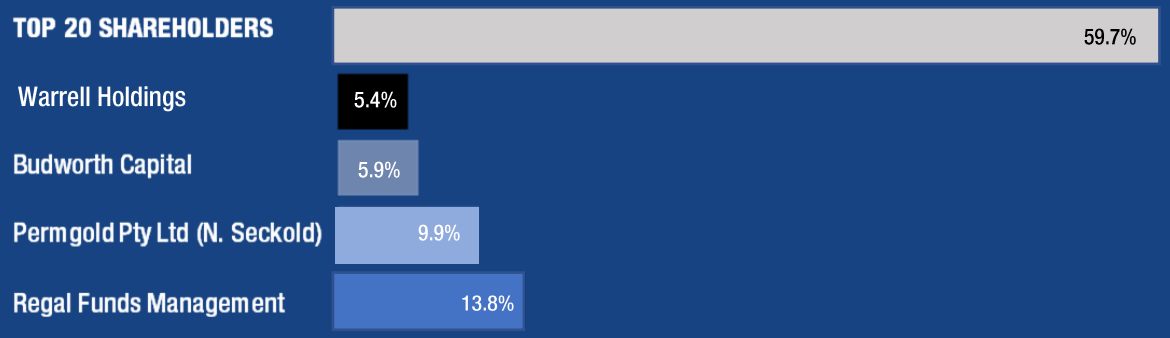
Issued Shares	692.4M
Unlisted options (@20c)	5.0M (expire 30 June 2021)
Unlisted options (@20c)*	10.0M (expire 31 July 2022)
Unlisted options (@30c)	39.0M (expire 31 July 2022)
Unlisted options (@35c)*	5.0M (expire 31 July 2023)
Unlisted options (@35c)	7.0M (expire 31 July 2023)
Market Cap	$242.2M
Est Cash (18-11-2020)	$6.0M
Enterprise Value	$236.2M

* Licensor Options

SHARE PRICE PERFORMANCE – 12 MONTHS



SHAREHOLDERS



HPA First Project

- Alpha HPA is dedicated to the commercialisation of its proprietary solvent extraction (SX) and refining process for the manufacture **of high purity alumina** (**HPA**) and **related products** = **The HPA First Project**

Alpha HPA is targeting key growth markets linked to the de-carbonisation mega-trend

LED lighting & Lithium-ion Batteries (LiB's)

- Alpha's HPA First Process generates an ultra-high purity aluminium stream from an industrial feedstock that can be directed to a range of high purity aluminium products used in LiB's and LED's.
- Alpha's HPA First process is disruptive to both existing and proposed HPA production processes:
  - **Low operational risks:** Front-end atmospheric temperatures and pressures
  - **Low production costs:** DFS OpEx estimates <US$6,000/tonne HPA
  - **Purity:** Pilot Plant purity reaching 99.998% HPA purity
  - **Flexibility:** The HPA First Process is capable of producing HPA powder, pellets, high-purity boehmite, high-purity LED and LiB precursors
- The target EV and LED markets are experiencing very favourable technology, regulatory and geopolitical tail winds

*Source: CRU

Recent Project Milestones

- The HPA First Project has been rapidly advanced over the last 18 months

July ’19 – Mar ’20: HPA First Pilot Plant - 600+hrs operation, > 40kg HPA Production

Nov- Dec ’19: Market Outreach – first HPA samples despatched to the LIB supply chain

Feb ’20: Chemical Counterparty Agreement with Orica – Gladstone Project Location

Mar ’20 Definitive Feasibility Study – completed March 2020

Aug ’20: Offtake, marketing & financing MOU with Traxys

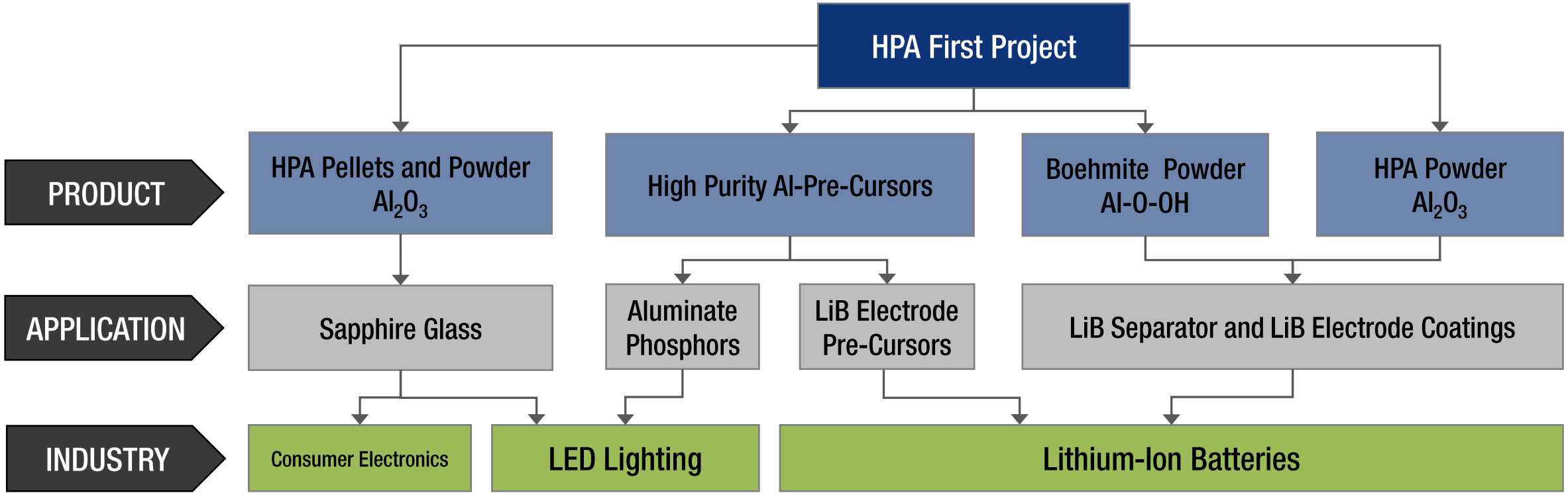
Sept ’20: High-purity (5N) Li-B Pre-Cursor manufacture confirmed

Oct ’20: Major Project Permitting Application (MCU) Lodged

Oct ’20: Maiden Sale of (5N) Li-B Pre-Cursor

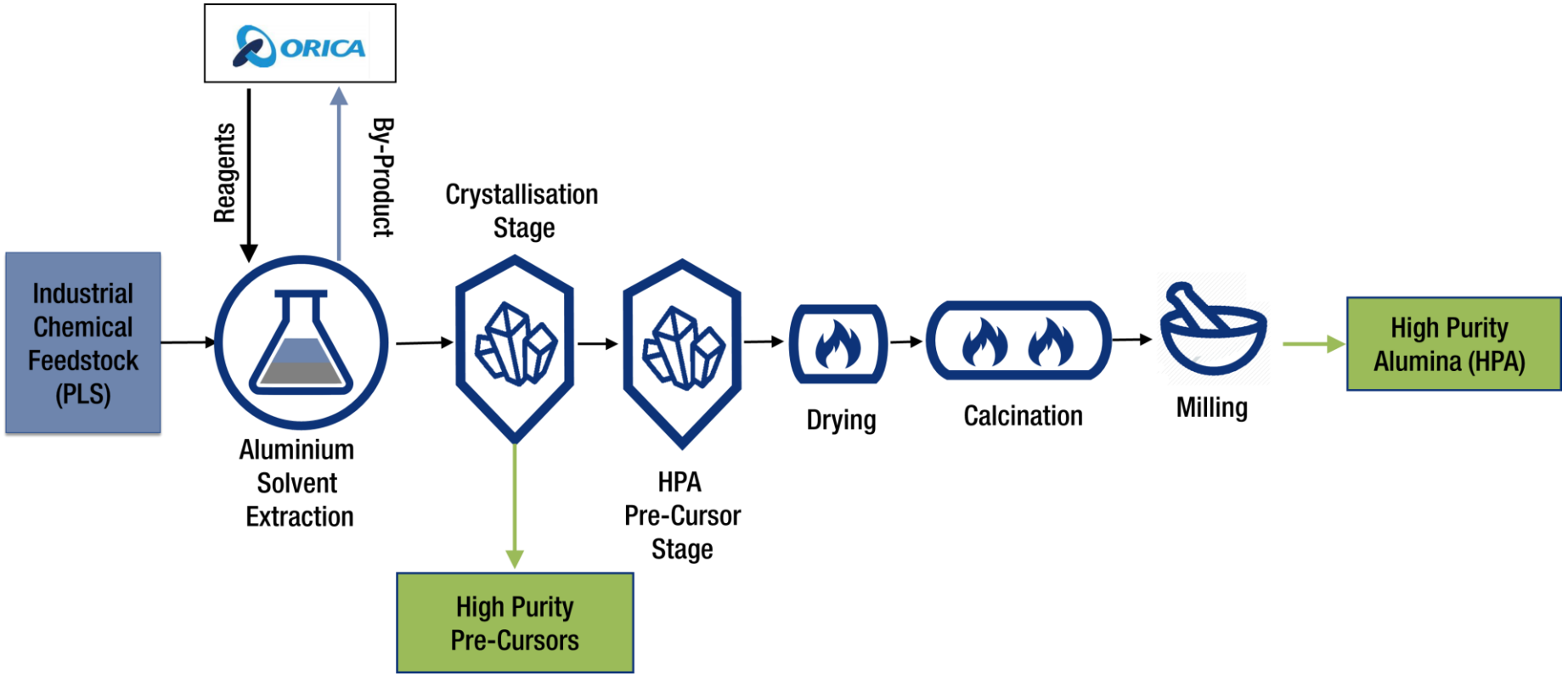
HPA First Project: High Purity Aluminium Products Summary

- The key target markets of the HPA First Project remain the LED lighting and Lithium-Ion Battery (LiB) markets
- The HPA First Process flexibility allows the business to penetrate these markets via numerous high-purity products as set out below



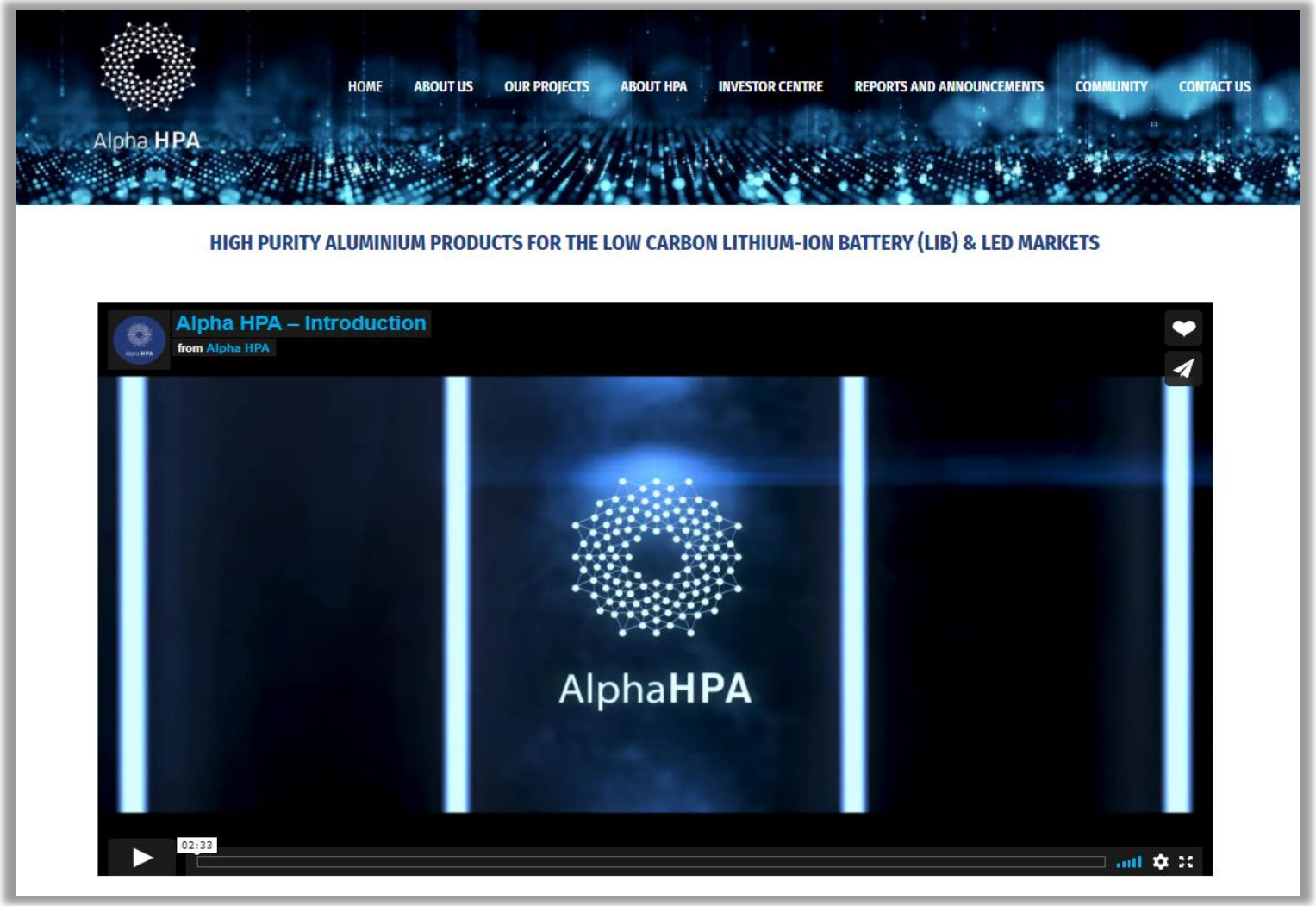
Process Flow Sheet: Low Cost & Flexible

- **Low operational risks:** Front-end atmospheric temperatures and pressures
- **Simplicity:** Ability to recycle reagents as by-products for sale
- **Low production costs:** DFS OpEx estimates <US$6,000/tonne HPA
- **Purity:** Pilot Plant purity reaching 99.998% HPA purity
- **Flexible:** High Purity aluminium stream can be diverted into a number of products



Process Flow Sheet: Video

- For more detail on our Process please view the new Project video at: www.alphaHPA.com.au

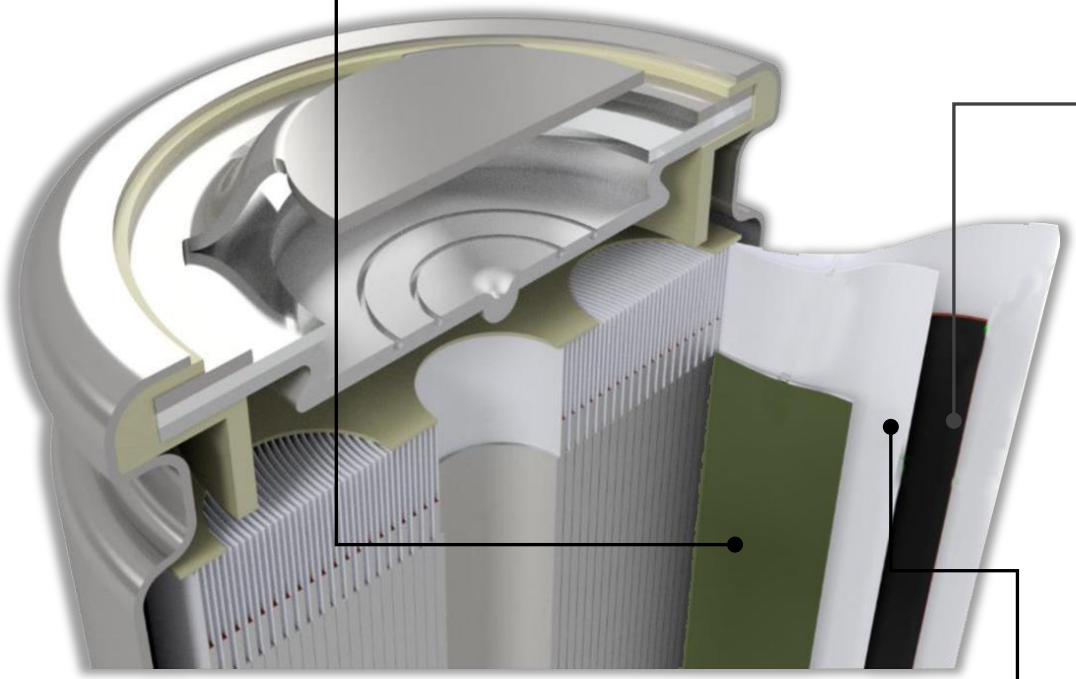


HPA First Project: Product applications inside the lithium-ion cell

Alpha HPA

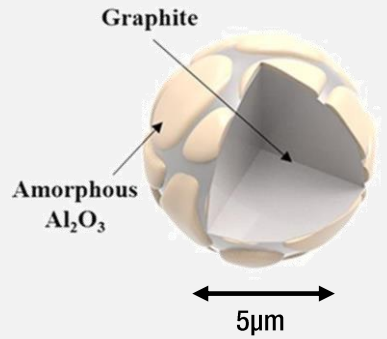
CATHODE

APPLICATION	HPA FIRST PRODUCTS
Alumina particle coating of cathode active materials	High-purity Al-Precursor #1
Co-precipitation of NCA and NCMA cathode active materials	High-purity Al-Precursor #2



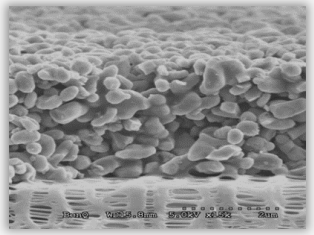
ANODE

APPLICATION	HPA FIRST PRODUCT
Alumina particle coating of graphite anode spheroids	High-purity Al-Precursor #1

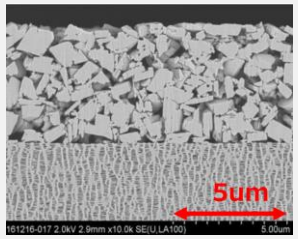


SEPARATOR

HPA Coated Separator



Boehmite Coated Separator



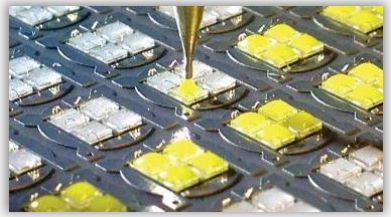
APPLICATION	HPA FIRST PRODUCT
Alumina or boehmite coating of ceramic coated separators (CCS)	High-Purity Alumina Al_2O_3 High-Purity Boehmite Al-O-OH

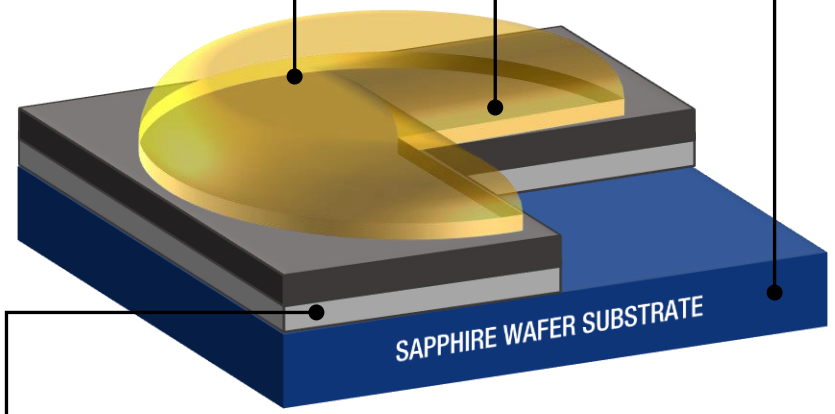
HPA First Project: Product applications inside LED lights

Alpha HPA

ALUMINATE PHOSPHORS

APPLICATION	HPA FIRST PRODUCT
Synthesis of Aluminate (YAG) Phosphors for white LEDS	HPA + High-Purity Al-Precursor #1





LED CHIP ARCHITECTURE

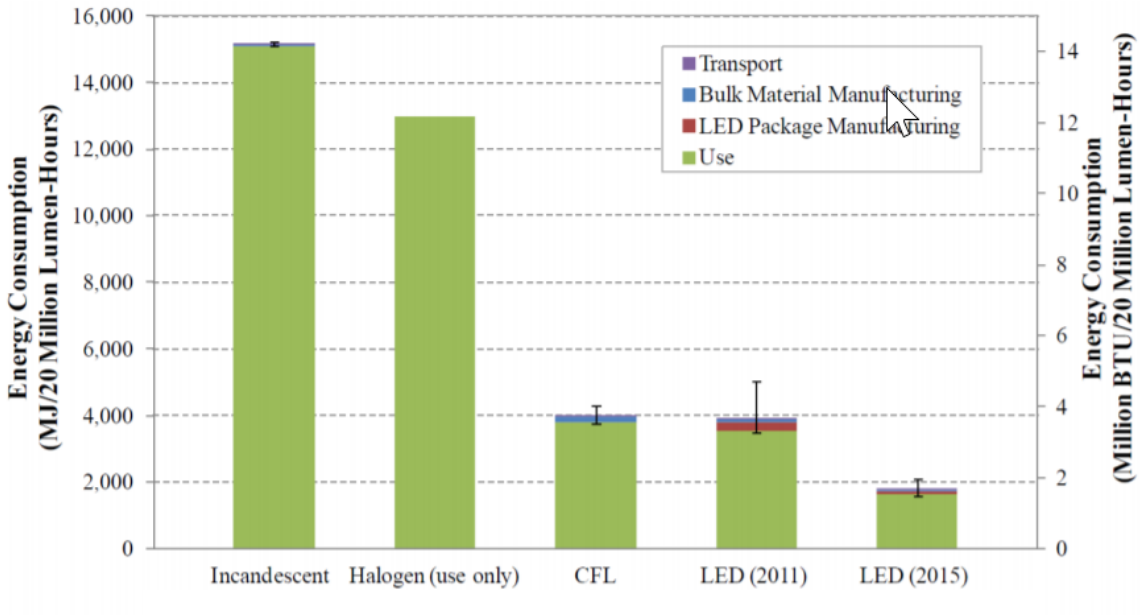
SAPPHIRE SUBSTRATE

APPLICATION	HPA FIRST PRODUCT
Sapphire Glass wafer substrate	High-purity alumina pellets and powder

The LED Lighting Market – a major player in de-carbonisation

Alpha HPA

- Alpha HPA is targeting the sapphire glass **>>** LED lighting market
- LED lights are 50-70% more efficient than incandescent globes
- Lighting is responsible for 6% of global CO_2 emissions*. A complete switch to LED lighting world wide, would prevent 1,400 millions tons of CO_2 being emitted and reduce the number of new power stations by 1,250
- The use of LEDs to illuminate buildings and outdoor spaces reduced the total carbon dioxide (CO_2) emissions of lighting by an estimated 570 million tons in 2017.

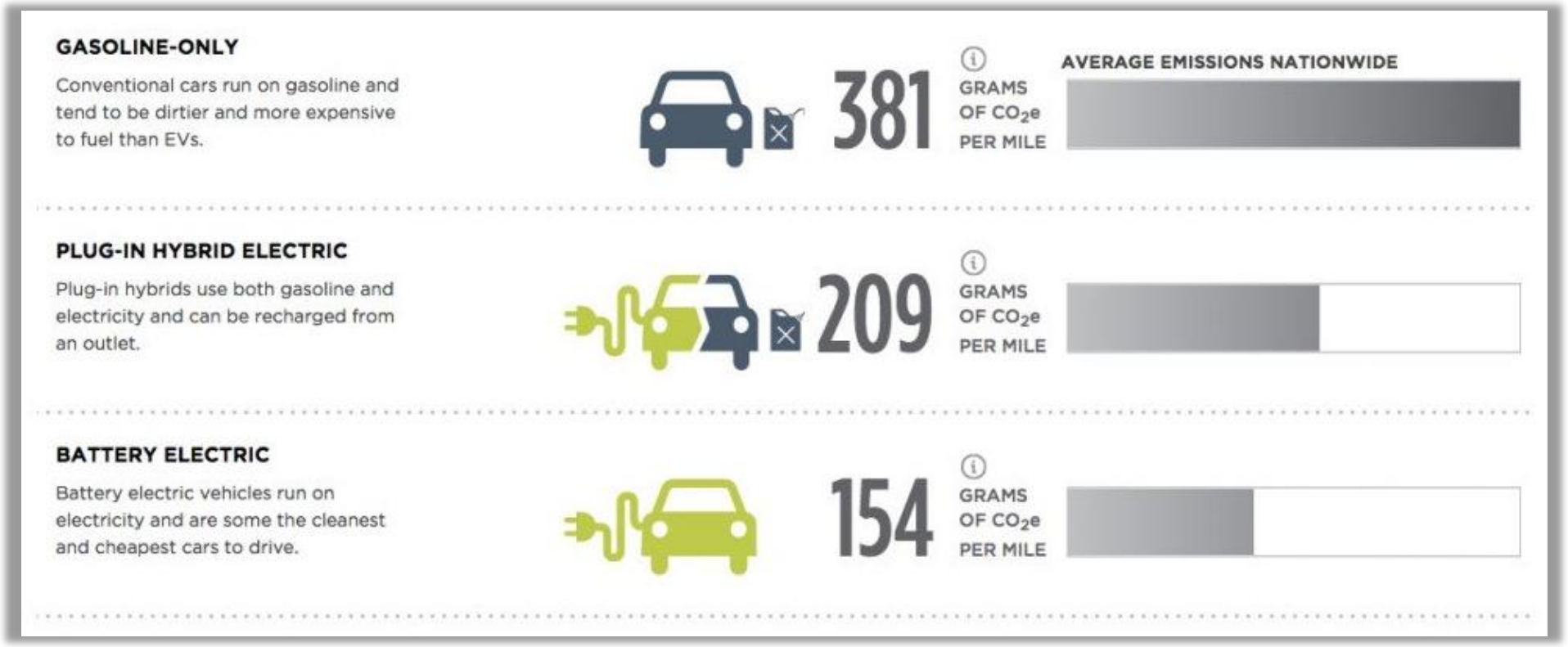


Source: US Dept of Energy

*The Climate Group
** HIS Markit (NASDAQ: INFO)

E-Mobility– a major player in de-carbonisation

- Alpha HPA is targeting the Lithium-ion battery separator market feeding the e-mobility revolution
- Pure battery EV's (BEV's) are estimated to reduce CO_2 emissions by >50% per mile travelled

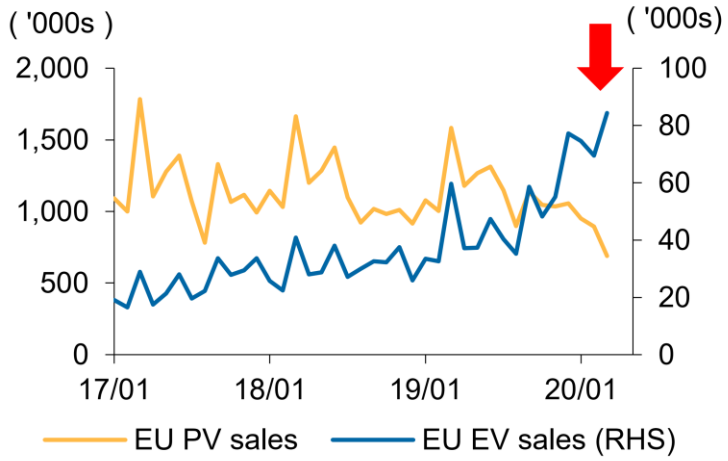


Source: Inside EV's (www.insideevs.com)

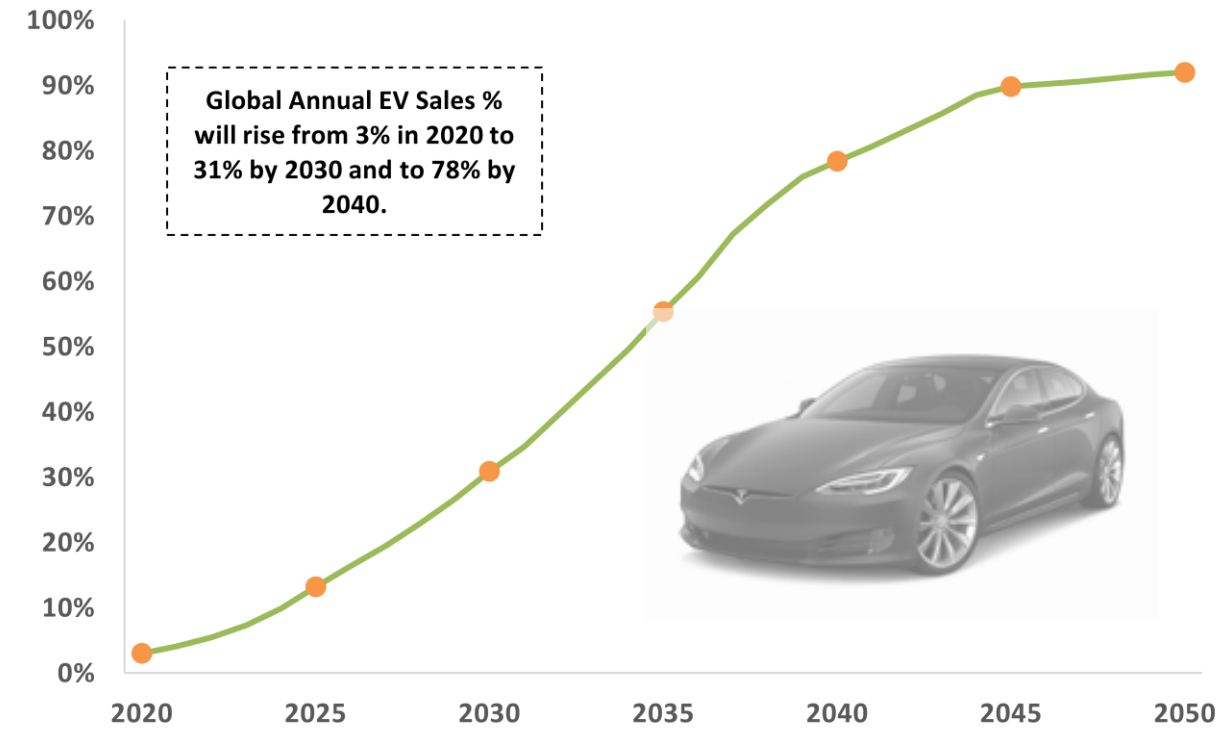
E-Mobility– a major player in de-carbonisation

- EV penetration rate forecasts vary, but bullish
- All forecasts >8% CAGR
- Pandemic disruption is seen as constructive by Macquarie for EV take-up (refer below) powered by **'green tinged' China and EU stimulus**

1Q20 EV sales in EU rose by 82% YoY, while conventoinal car sales dropped by 31%YoY



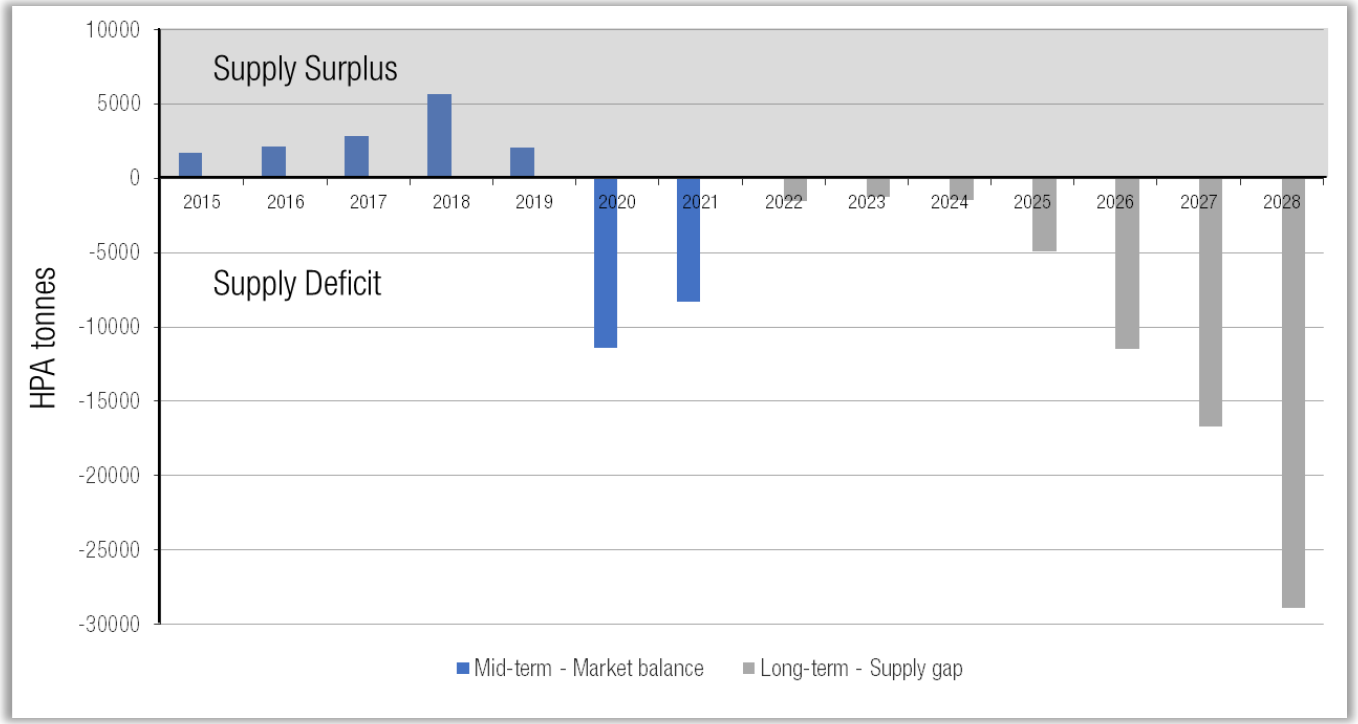
Source: EAMA, Macquarie Research, June 2020



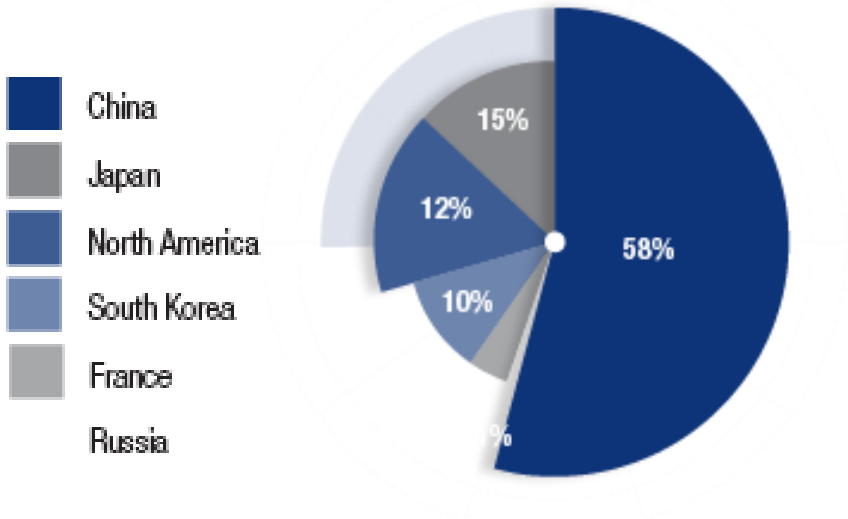
Source: Morgan Stanley Research

Projected HPA Deficit

- The HPA First Project is scheduled to deliver > 4N HPA into a growing market deficit
- As part of a detailed HPA market review (Dec 2019), CRU present a > 4N HPA market in relative balance until 2020, after which deficits build through to a large supply deficit of nearly 30,000tpa by 2028.



> 4N HPA Market Dynamic

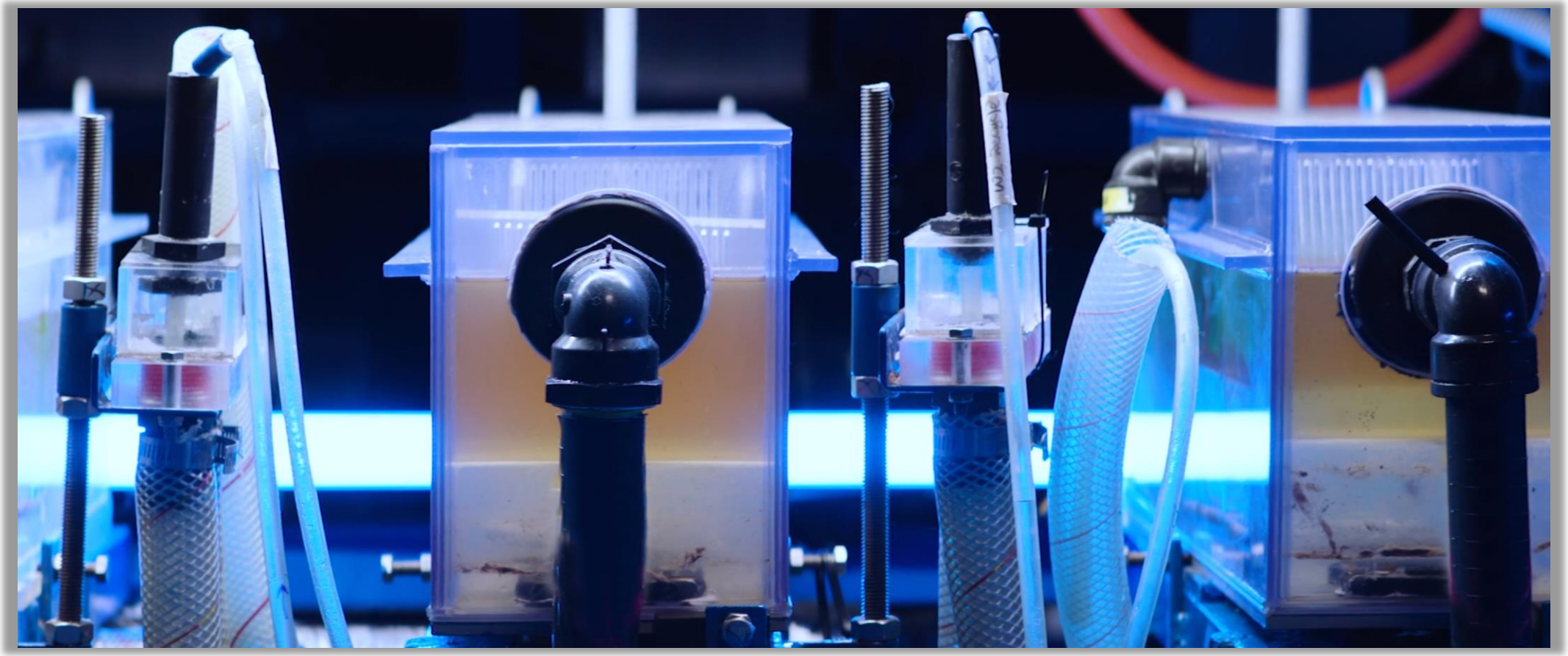


China dominant HPA Supply

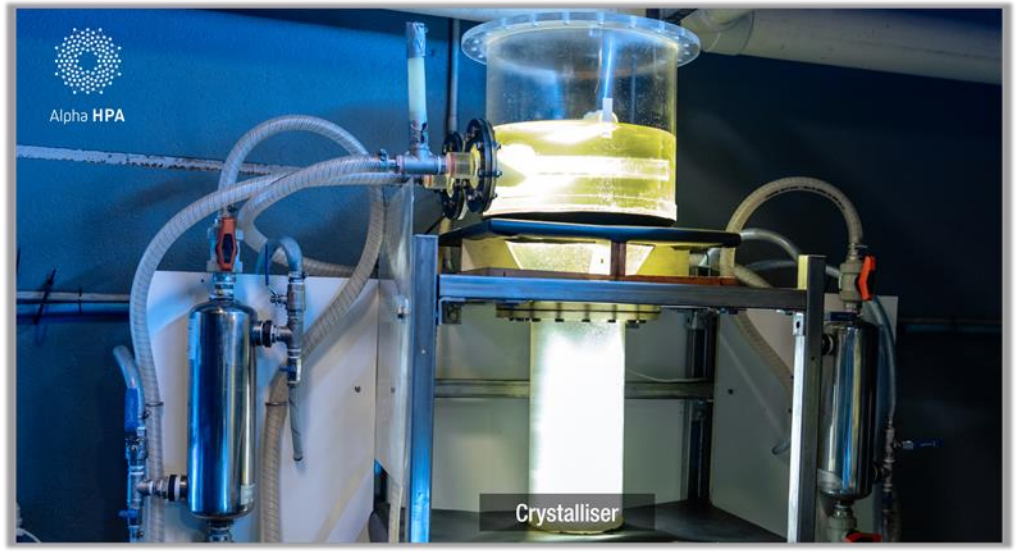
Source: CRU

HPA First Project: Brisbane Demonstration Plant

- The Brisbane Plant has now recorded over 1,500 hrs operation producing approx. 125kg HPA plus precursors
- Production process has been validated, purity HPA reaching to 99.998% purity
- Plant upgraded to ‘demonstration’ scale in July-Sept to meet end-user test demand
- Plant now manufacturing HPA powders, HPA pellets, and high-purity Li-B/LED precursors

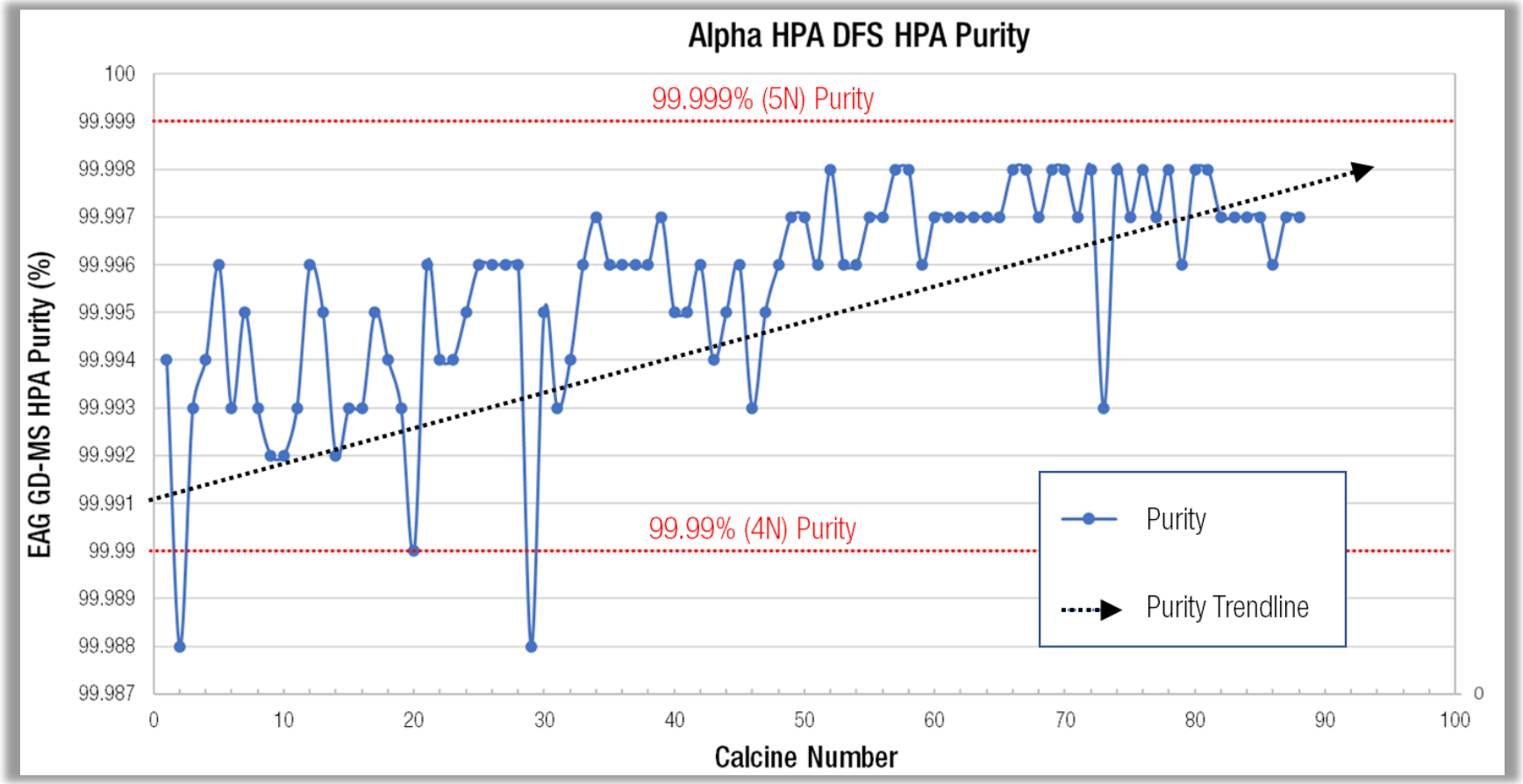


HPA First Project: Brisbane Demonstration Plant



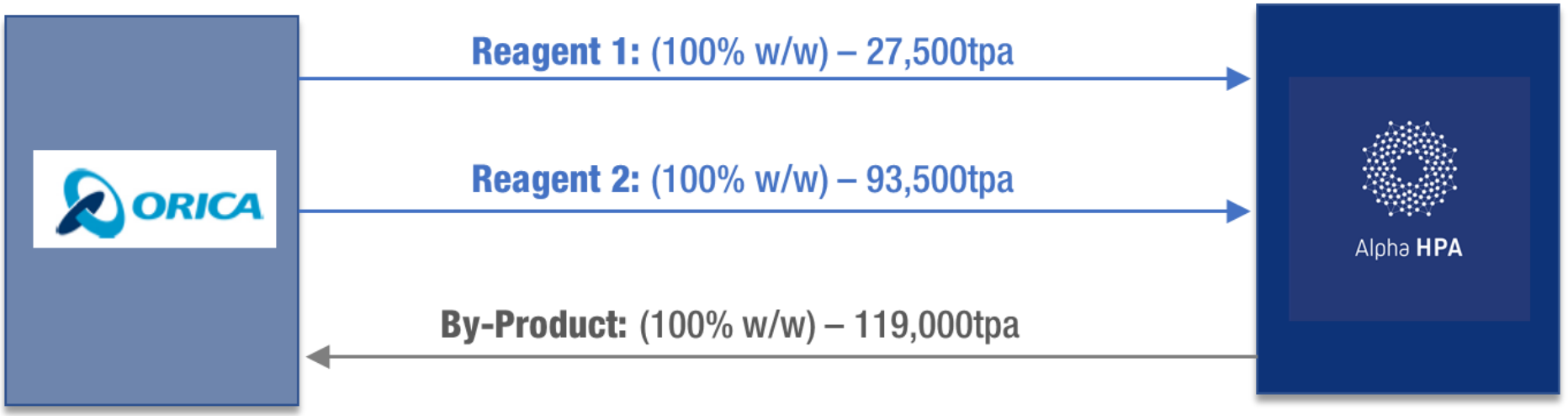
HPA Purity

- The Brisbane Plant has achieved continuous HPA purity improvement – now reaching ***99.998%*** purity
- Purity trend expected to improve on larger volumes and commercial plant



Orica MOU

- The HPA First Project requires the supply of two key chemical reagents, which are recycled inside the HPA production process as a by-product for sale back to the reagent supplier.
- Alpha HPA concluded a **Chemical Counterparty Agreement** (MOU) with Orica in March 2020 for reagent supply and by-product offtake by pipeline.
- MOU sets out a pricing mechanism for both key reagents as well as the by-product over an indicative 20-year term.
- Orica and Alpha HPA now finalising definitive agreements

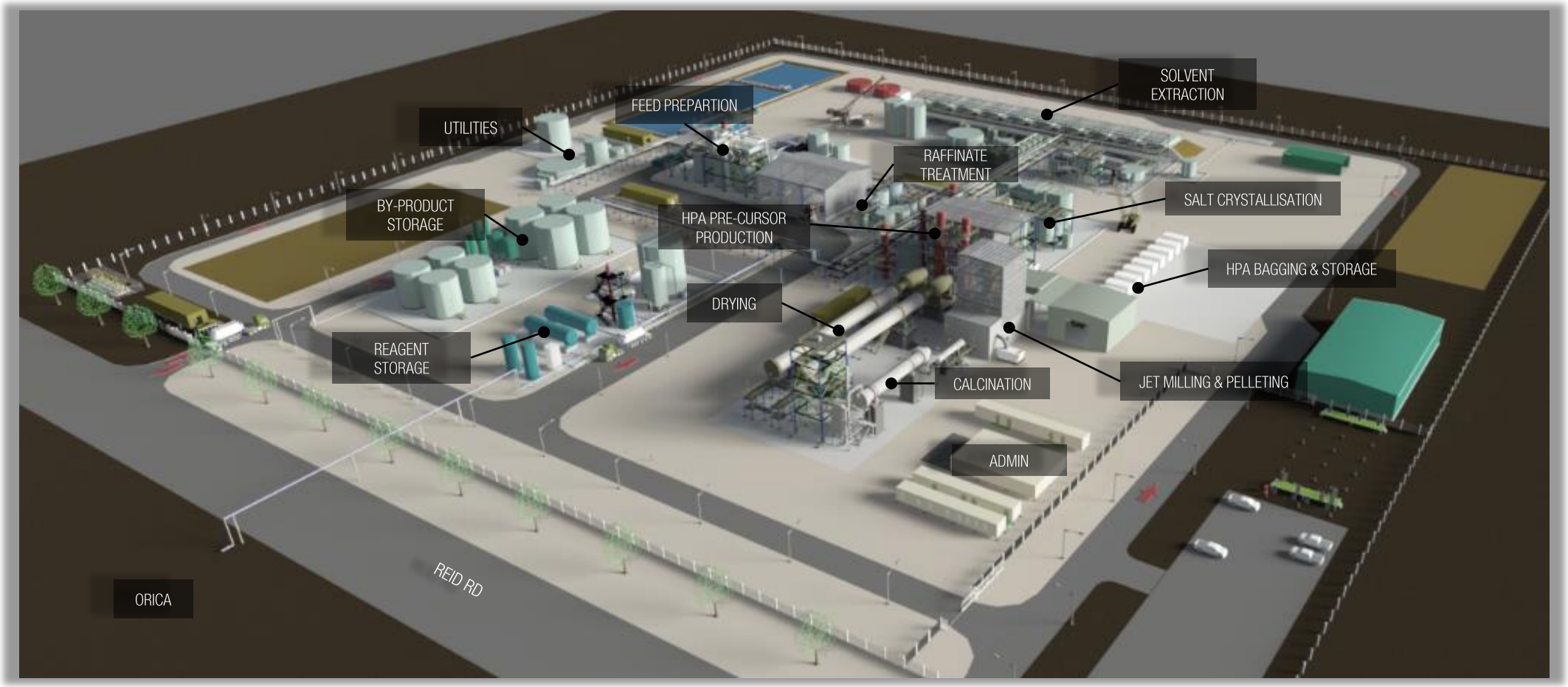


Project Location

- The Orica MOU has been negotiated on the basis of reagents supply and by-product offtake delivered from/to Orica's facility in Yarwun, QLD, within the Gladstone State Development Area ('GSDA').
- On this basis, Alpha HPA has executed a land contract with Economic Development Queensland ('EDQ') on a suitable 10ha land parcel within the GSDA, being Lot 12/SP239343.
- **Project Permit applications (MCU) lodged in October 2020**

HPA First Project Site – Gladstone State Development Area, North Queensland

Project Layout



3D Model - HPA First Commercial Plant

Traxys MOU

- Memorandum of Understanding (MOU) signed in August with Traxys with respect to the HPA First Project
- The Traxys MOU sets the framework for Project-wide cooperation on:

1. **Product Marketing and Offtake**
   Joint engagement with respect to prospective customers, with a view to engaging in a long-term offtake and/or marketing agreement.

2. **Finance and Logistics Support**
   To jointly develop credit and logistics solutions to assist in closing commercial agreements with Alpha HPA's customers.

3. **Working Capital Facilities**
   The provision of working capital and/or pre-payment facilities in consultation with, and in support of, potential senior lenders to the Project, including Australian Government and commercial lenders.

4. **Direct Investment**
   The potential direct investment in Alpha HPA by Traxys and/or its affiliates, including debt, equity or quasi-equity.

Traxys North America is part of the Traxys Group, an international client-focused commodities merchant that provides market access and solves complex supply chain, distribution and financing challenges for a wide range of clients. Traxys operates from a network of over 20 locations worldwide, employs approximately 450 personnel and has an annual turnover in excess of USD 6 billion. The Traxys Group is deeply imbedded in the global lithium-ion battery supply chain from mine to market. In addition to its merchant activities, Traxys has formed a joint venture focused on the development of responsibly sourced battery materials projects with UK-based natural resources investor, the Pallinghurst Group.

Global Market Outreach: Status

- Global outreach campaign underway to identify key end-users:
  - 22 individual test orders (all products) delivered
  - 5 further test orders being serviced at the Brisbane Plant
  - 3 test programmes underway at the Brisbane Plant at end-user request
  - First sale of 5N precursor, further sales expected in Nov-Dec 2020
- Alpha targeting additional MOUs, leading to offtake agreements, in CY20
- Traxys co-ordinated outreach now engaging most of the major cathode & Li-ion battery manufacturers
- Key Outreach themes: Increasing purity trend & supply chain diversification

Definitive Feasibility Study – March 2020

- Comprehensive technical and financial validation of the Company's HPA First Project
  - **Production rate of 10,000tpa HPA**
  - **Annual free cashflow increased to A$280M****
  - **Strong Project cashflows under all modelled price scenarios (US$15/20/25kg HPA)**
  - **Unit cash costs of A$8,730 (US$5,940)/t HPA after by-product credits**
  - **Project CapEx of A$308M (US$209M)**
  - **Capital intensity of A$30,800 (US$20,900)/tpa HPA**
  - **Financially robust project with high profitability at HPA prices as low as US$10,000/t**

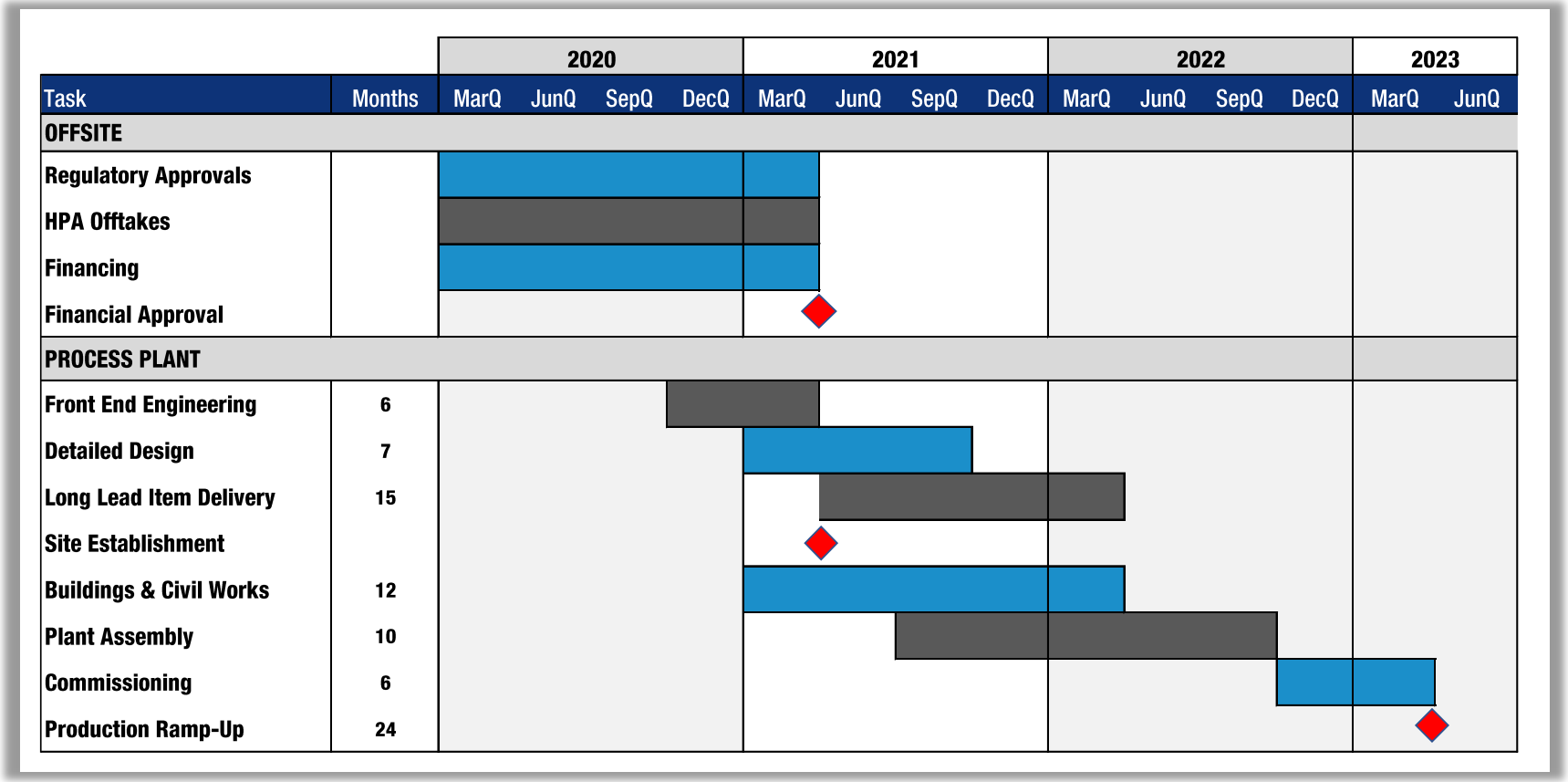
	HPA Pricing Scenarios					
Key Project Parameters	**USD $25/kg**		**USD $20/kg**		**USD $15/kg**	
	AUD	USD	AUD	USD	AUD	USD
Annual Revenue @ 10,000tpa	$368 million	$250 million	$294 million	$200 million	$221 million	$150 million
Annual Pre-Tax Cashflow	$280 million	$191 million	$207 million	$141 million	$133 million	$91 million
Payback	< 2 years		<3 years		<4 years	

**HPA price of US$25/kg and USD/AUD = 0.68*

***Relative to March 2019 PFS = A$265M*

Project Schedule

- Alpha HPA is progressing offtakes, permitting and financing workstreams with a target of having Project construction commencing March Qtr 2021
- Targeting first production by late CY2022



Adjusted DFS Project Schedule

Board & Management

Norman Seckold
Chairman

40+ years in the full time management of natural resource companies. Past Chairman and Director of listed companies including Bolnisi Gold NL, Timberline Minerals Inc., Perseverance Corporation Limited, Valdora Minerals NL, Palmarejo Silver and Gold Corp. Currently Chairman of Santana Minerals Limited and Sky Metals Limited and Deputy Chairman of Nickel Mines Limited.

Rimas Kairaitis
Managing Director

20+ years experience in minerals exploration and project development in gold, base metals and industrial minerals. Led the geological field teams to the discovery of the Tomingley and McPhillamy's gold deposits in NSW and steered the Hera gold-lead-zinc Project from discovery through to successful commissioning and commercial production. Previously founding Managing Director and CEO of ASX-listed Aurelia Metals. Currently a Director of Sky Metals Ltd.

Peter Nightingale
Director and CFO

30+ years as a Director or Company Secretary for a range of resource companies including Pangea Resources Limited, Timberline Minerals Inc., Perseverance Corporation Limited, Valdora Minerals NL, Mogul Mining NL and Bolnisi Gold NL. Currently a Director of Nickel Mines Limited and unlisted Prospech Limited.

Justin Werner
Non-Exec. Director

20+ years' mining and management experience. Previously consulted to a number of blue chip mining companies including BHP, Rio Tinto and Freeport McMoran.

Successful track record of mine discovery and development. Currently Managing Director of Nickel Mines Limited.

Tony Sgro
Non-Exec. Director

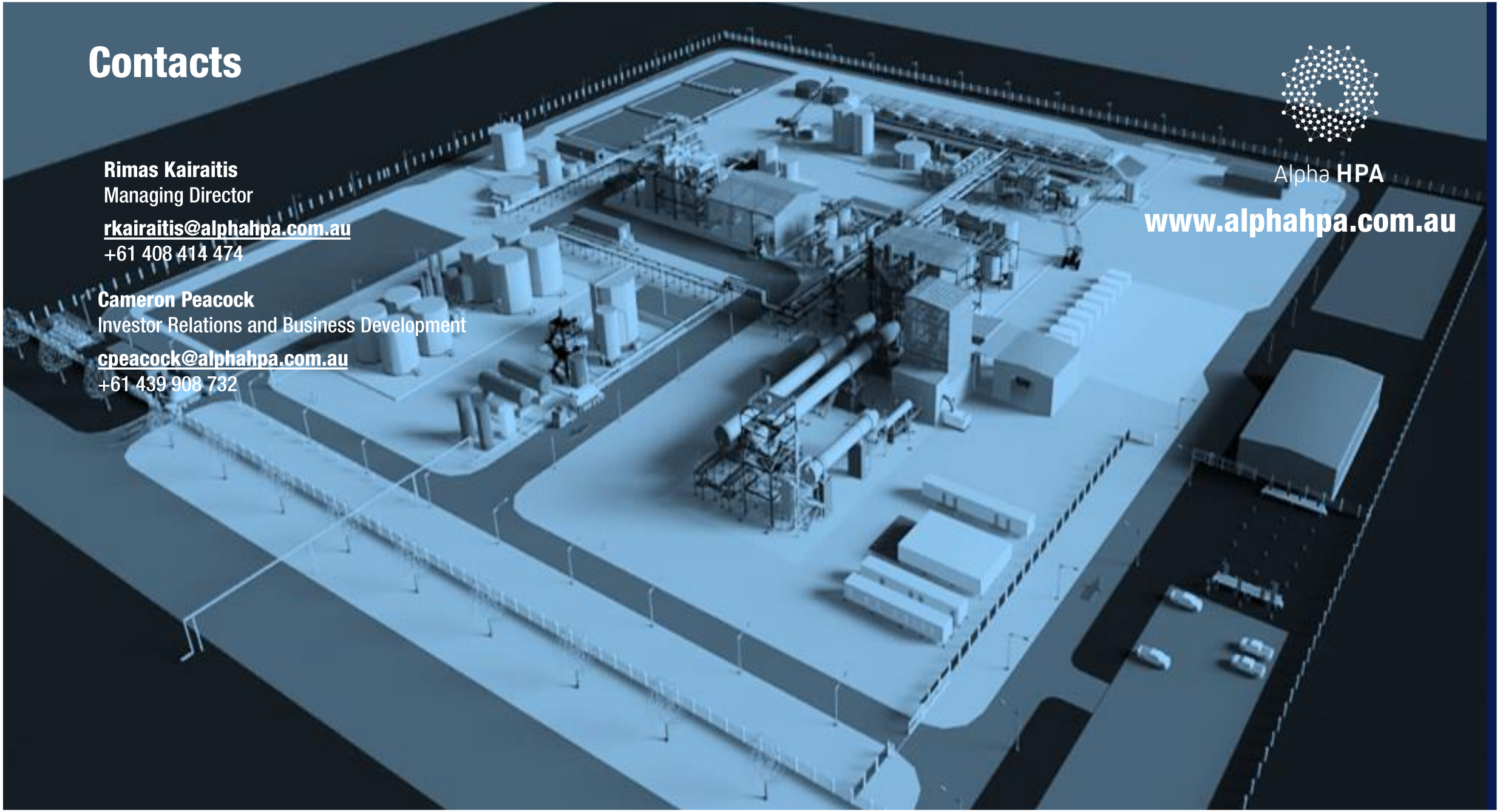
Chemical Engineer with 45+ years' senior management experience in the supply of specialised equipment to the process industries with an emphasis on mining and oil & gas.

Co-founder, Director and General Manager of Kelair Pumps for 36 years.

Rob Williamson
Chief Operations Officer

Rob is a mechanical engineer and joins the Company having recently rebuilt and started up a new 155ktpa SX zinc refinery in the USA in the capacity of Vice President and GM of the facility and ideally placed to bring 20 years of experience in large facility operations to Alpha HPA. Rob is based in Brisbane and responsible for building a Project delivery team for our HPA project in Gladstone.

Contacts



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Alpha **HPA**

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Competent Person Statement (Process Development Testwork)

Information in this announcement that relates to metallurgical results is based on information compiled by or under the supervision of Dr Stuart Leary, an Independent Consultant trading as Delta Consulting Group. Dr Leary is a Member of The Australasian Institute of Mining and Metallurgy. Dr Leary has sufficient experience to the activity which he is undertaking to qualify as a Competent Persons under the 2012 Edition of the 'Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Leary consents to the inclusion of the technical data in the form and context in which it appears.

For further information on testwork results and processes see ASX announcements dated 27 October 2020, 8 October 2020, 28 September 2020, 28 July 2020, 19 June 2020, 21 May 2020, 23 April 2020, 25 March 2020, 17 March 2020, 10 December 2019, 21 November 2019, 10 October 2019, 23 September 2019, 28 August 2019, 5 August 2019, 25 July 2019, 2 July 2019, 3 June 2019, 17 April 2019, 7 March 2019, 4 December 2018, 20 November 2018, 6 September 2018, 31 August 2018, 9 July 2018, 30 April 2018, 26 April 2018, 21 March 2018, 6 March 2018, 21 February 2018, 8 December 2017, 30 November 2017, 29 November 2017, 24 November 2017 and 13 November 2017.