



DEVELOPING STRATEGIC HIGH PURITY ALUMINA (HPA)
CADOUX KAOLIN PROJECT IN WESTERN AUSTRALIA

BENCHMARK MINERALS WEEK 16-20 SEPTEMBER 2019

INVESTOR NOTICE

CAUTIONARY STATEMENT

This presentation is for information purposes only. Neither this presentation nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction. This presentation may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in that jurisdiction.

The PFS referred to in this presentation is a study of the potential viability of the Cadoux Project. It has been undertaken to understand the technical and economic viability of the Project. The PFS is based on the material assumptions outlined in the PFS announcement released to ASX on 25 September 2018 and summarised in the Summary of Material Assumptions and Modifying Factors description and tables (appendix 2 and 3) attached to the PFS document. These include assumptions about the availability of funding. 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 range of outcomes indicated by this PFS will be achieved. To achieve the range of outcomes indicated in the PFS funding in the order of US\$197 million will likely 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 Project. If it does, this could materially reduce the Company's proportionate ownership of the Project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the PFS. The contents of this presentation reflect various technical and economic conditions, assumptions and contingencies which are based on interpretations of current market conditions at the time of writing. Given the nature of the resources industry, these conditions can change significantly and without notice over relatively short periods of time. Consequently, actual results may vary from those detailed in this presentation. Some statements in this presentation regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance.

Such forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. When used in this presentation, words such as, but are not limited to, "could", "planned",

"estimated", "expect", "intend", "may", "potential", "should", "projected", "scheduled", "anticipates", "believes", "predict", "foresee", "proposed", "aim", "target", "opportunity", "nominal", "conceptual" and similar expressions are forward-looking statements. Although the Company believes that the expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements. The contents of this release are also subject to significant risks and uncertainties that include but are not limited to those inherent in mine development and production, geological, mining, metallurgical and processing technical problems, the inability to obtain and maintain mine licences, permits and other regulatory approvals required in connection with mining and processing operations, competition for among other things, capital, acquisitions of reserves, undeveloped lands and skilled personnel, incorrect assessments of the value of projects and acquisitions, changes in commodity prices and exchange rates, currency and interest rate fluctuations and other adverse economic conditions, the potential inability to market and sell products, various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions, the demand for and availability of transportation services, environmental, native title, heritage, taxation and other legal problems, the potential inability to secure adequate financing and management's potential inability to anticipate and manage the foregoing factors and risks. All persons should consider seeking appropriate professional legal, financial and taxation advice in reviewing this announcement and all other information with respect to the Company and evaluating the business, financial performance and operations of the Company. Neither the provision of this presentation nor any information contained in this release or subsequently communicated to any person in connection with this presentation is, or should be taken as, constituting the giving of investment or financial advice to any person. This presentation does not take into account the individual investment objective, financial or tax situation or particular needs of any person.

DISCLAIMER

COMPETENT PERSONS' STATEMENTS

The information in this report that relates to Ore Reserves is based on information compiled by Mr. Steve Craig, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Steve Craig is a full-time employee of Orelogy Consulting Pty Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

The information is extracted from the Ore Reserve announcement released 29 October 2018 and is available to view on the Company's website at www.fyiresources.com.au

The information in this report that relates to Mineral Resources is based on information compiled by Mr Grant Louw, under the direction and supervision of Dr Andrew Scogings, who are both full-time employees of CSA Global. Dr Scogings is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. He is a Registered Professional Geologist in Industrial Minerals. Dr Scogings has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves". The information is extracted from the PFS announcement dated 25 September 2018 and is available to view on the Company's website at www.fyiresources.com.au

The information in this report that relates to metallurgy and metallurgical test work is based on information reviewed and compiled by Mr Daryl Evans, a Competent Person who is a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Evans is an employee of Independent Metallurgical Operations Pty Ltd, and is a contractor to FYI. Mr Evans has sufficient experience that is relevant to this style of processing and type of deposit under consideration, and to the activity that he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves". Announcements in respect to metallurgical results are available to view on the Company's website at www.fyiresources.com.au .

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the findings in the relevant market announcements continue to apply and have not materially changed and that all material assumptions and technical parameters underpinning the estimate in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcement.

INTRODUCING FYI RESOURCES

FYI is aiming to become a dominant participant in the global HPA market

Strategy



Developing the world-class Cadoux project with the goal of becoming a leading producer

Quality



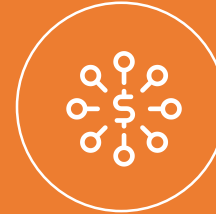
Simplified, innovative and efficient flowsheet deriving HPA from kaolin validated through extensive R&D and Pilot Plant testwork

Economics



Building upon outstanding PFS results: low opex and capex operation

Growth



The global HPA market is experiencing rapid demand growth that is forecast to continue

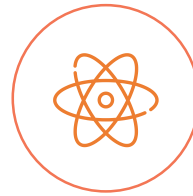
Advantage



Fully integrated in a tier 1 mining jurisdiction with excellent infrastructure and Kwinana "Battery Alley" footprint



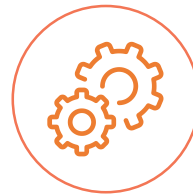
HIGH PURITY ALUMINA (HPA)



HPA is a processed premium non-metallurgical alumina product characterised by its purity level – i.e. 99.99% (4N), 99.999% (5N).



HPA is mainly used for its superior properties, such as corrosion and scratch resistance, high brightness, and its ability to withstand extreme temperatures.



Currently HPA is sourced from expensive feedstock, such as refined aluminium metal sourced from bauxite using antiquated processing. **FYI plans to produce low-cost HPA from kaolin using innovative processing route.**



Applications include: LEDs, in the manufacture of sapphire glass and in certain battery and static power storage components, aeronautical and medical applications.

HPA MARKET OVERVIEW

HPA FORMS A SIGNIFICANT PART IN HIGH-PERFORMANCE ELECTRONICS



Historically a small market – no justification for product innovation



New applications and technologies have created demand and market opportunities

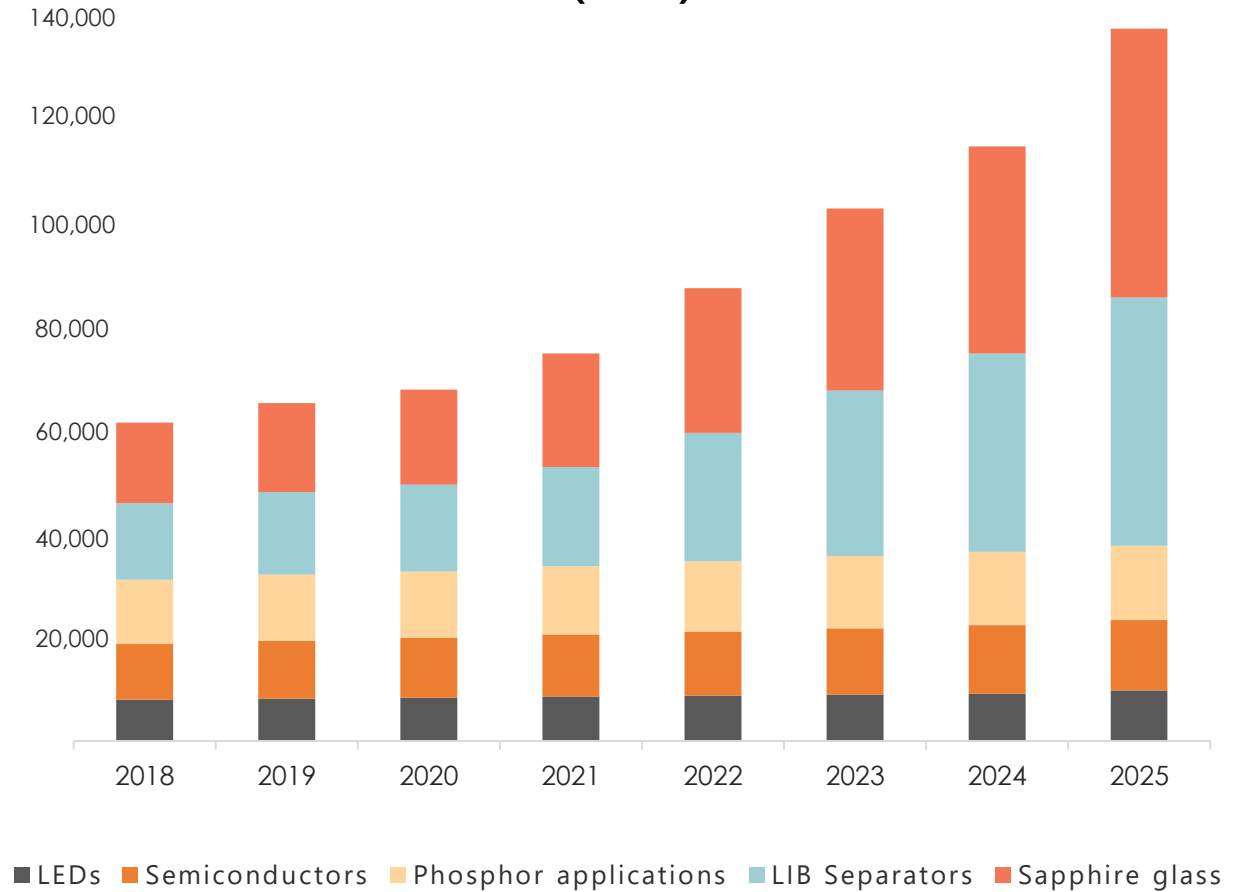


The current global 4N HPA market demand is ~60ktpa; this is expected to increase to ~90ktpa by 2022 and >130ktpa by 2025*



The market for HPA is witnessing dramatic consumer driven growth, with the HPA market forecasted to be US\$4.49Bn by 2022**

HPA FORECASTED DEMAND GROWTH (KTPA)



Personal use only

HPA MARKET SNAPSHOT

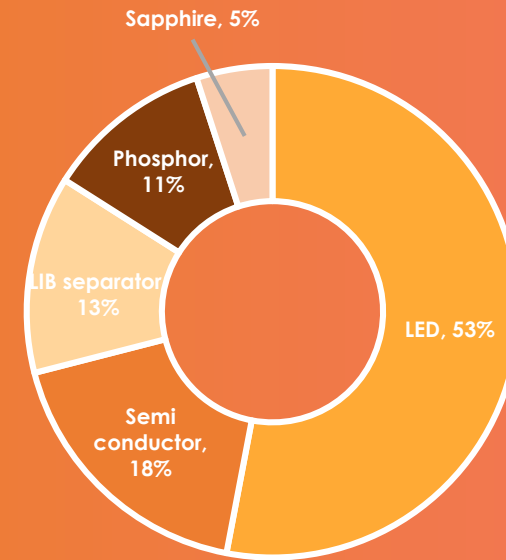
- Demand for HPA is predominantly driven by its applications in LEDs, this market is growing rapidly and will continue to be a key end-user of HPA
- HPA as a Lithium-ion battery separator coating (LIB separator) is expected to generate significant demand as electric vehicles (EV) revolution plays out
- EV battery-related HPA demand is expected to surpass the LED market demand within the next 5 to 10 years
- Applications in phosphor coatings, scratch-proof glass and semi-conductors are a steady source of demand for HPA
- Pricing of HPA varies depending upon the grade and other characteristics that effect application performance ie density, particle size crystal structure and matrix of remnant deleterious elements
- HPA is one of the bigger beneficiaries in the globalising of EV transport

References:

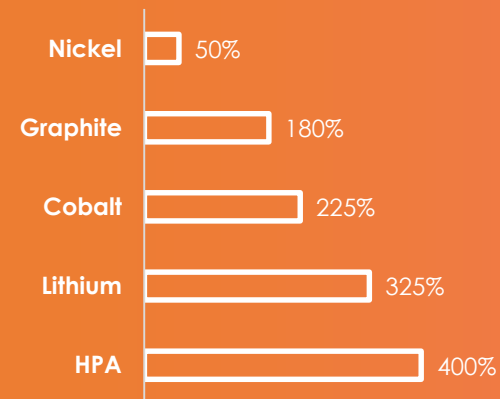
** - CRU HPA Industry report

*** - Benchmark Minerals: Lights, Batteries, Action! – Q4 Review 2018

HPA Market 2018 Segmentation***



EV Materials Demand Growth**



HPA Pricing by Purity**

SGA	~US\$400/t
3N	~US\$10-25kg
4N	~US\$25-50kg
5N	~US\$50-100kg
6N	By negotiation

HPA IN THE EV BATTERY REVOLUTION



EV battery market forecast to grow from **US\$450Mn (2016) to US\$35Bn (2025)***



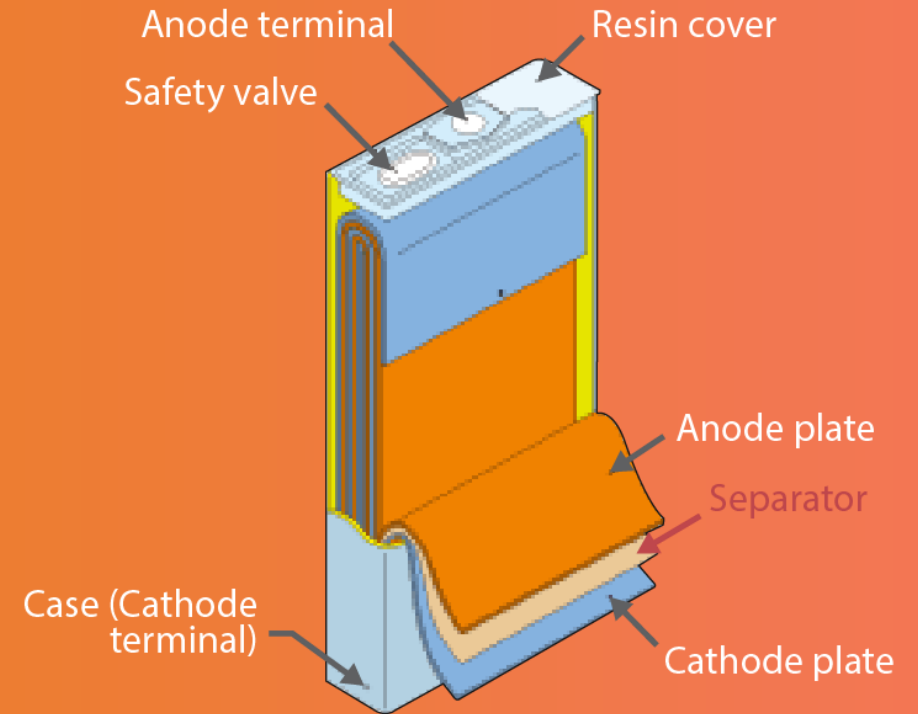
Battery performance (energy density) is increasing dramatically



HPA is a major input into ceramic coated separators (CCS) in batteries



HPA provides greater protection, battery integrity at much higher temperatures



Cross-Sectional view of lithium-ion battery

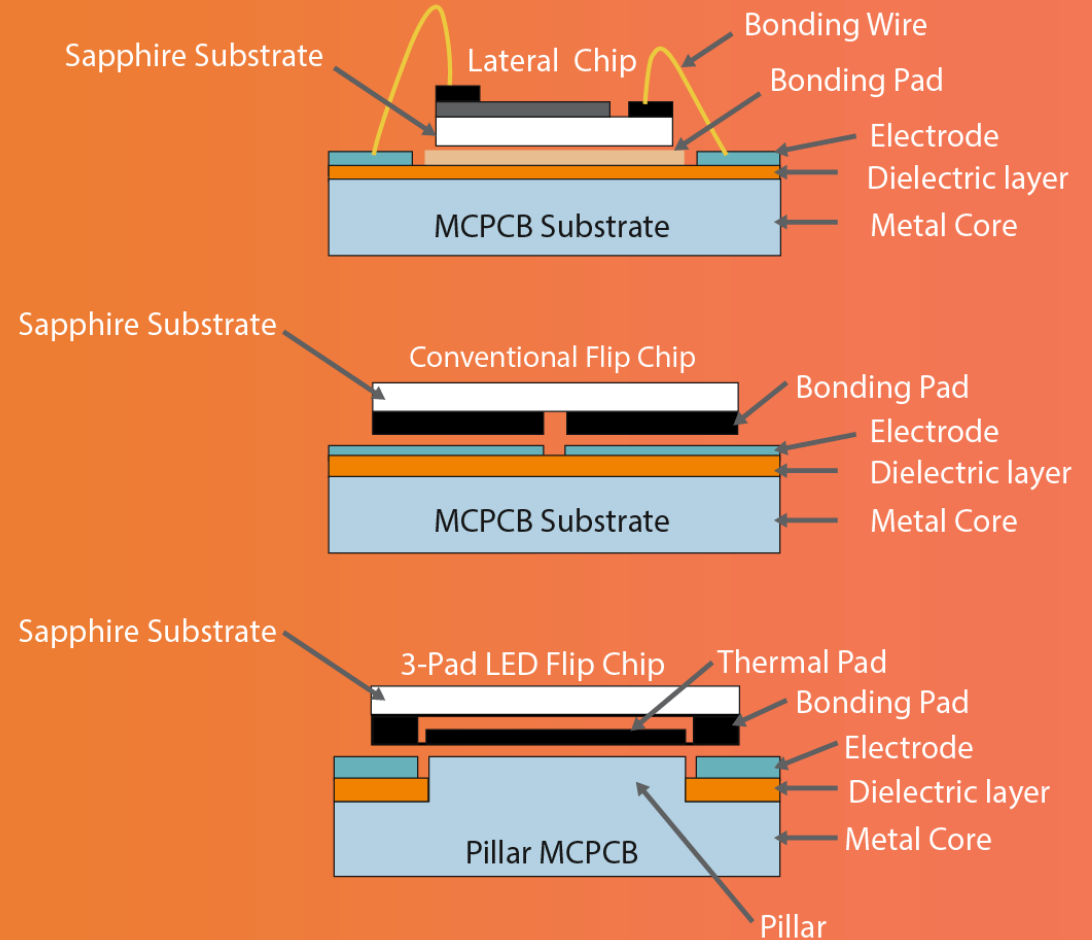
HPA: A KEY COMPONENT IN LEDs

Light emitting diodes (LED)

- Increasing environmental awareness and strict Government power and emission policies
- Phasing out of old and inefficient lighting applications (eg incandescent, neon, halogen)
- Providing assurance to manufactures of a reliable and consistent supply of HPA
- LED market is forecast to grow from **US\$26Bn (2016) to US\$54Bn by 2022** and progressively take the major share of the global market of US\$110Bn**

References:

** - Zion Market Research LED Report | McKinsey – Global Lighting Market Report

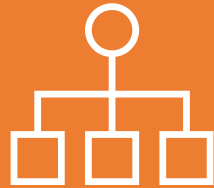


Cross-Sectional view of various LED designs

KEY ACHIEVEMENTS - 12 MONTHS



Delivered outstanding PFS for Cadoux



Process flowsheet optimised to increase efficiencies + reduce Capex & Opex



Metallurgical results exceeded 99.99% target HPA



Cadoux DFS nearly completion



Initiated HPA offtake negotiations with customers



Pilot plant – validating of the process and de-risking the project



Project Reserves providing > 50 years mine-life



Kwinana "Battery Alley" refinery site applied for



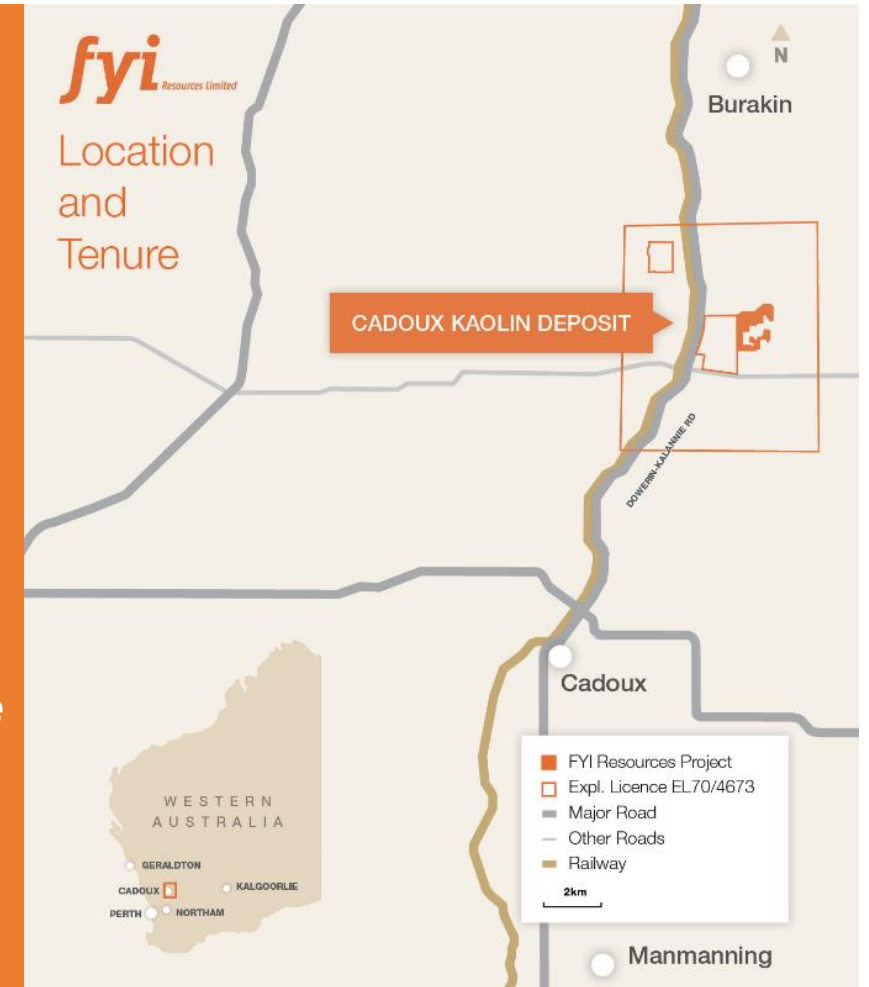
Mining Lease granted for 21 years



Project environmental permitting completed

FYI HAS A RESOURCE IDEAL FOR HPA

- ⇒ The Cadoux Kaolin Project area boasts **excellent infrastructure**
- ⇒ **Deposit geology is ideal** – shallow, flat lying, low strip, free digging, homogenous excellent quality & easily accessible
- ⇒ Extensive drilling, **well understood geology** - Detailed Mine Study completed, reserves calculated, first 3 years of grade control completed
- ⇒ Excellent characteristics quality, grade and low deleterious elements – **extremely amenable to FYI's HPA innovative process design**
- ⇒ 100% owned project area private land, no native title, no EPA. **Permitting completed.**
- ⇒ Reserve of 2.89 million tonnes grading 24.4% Al₂O₃ **supports PFS mine life of 25+ years**
- ⇒ Provides a fully **integrated, reliable, consistent and secure supply** of feedstock for the HPA refining



FYI'S SIMPLE & INNOVATIVE FLOWSHEET DESIGN



Developed for Cadoux's exceptional quality and characteristics



Designed for efficiency, heavy duty, low maintenance and long life



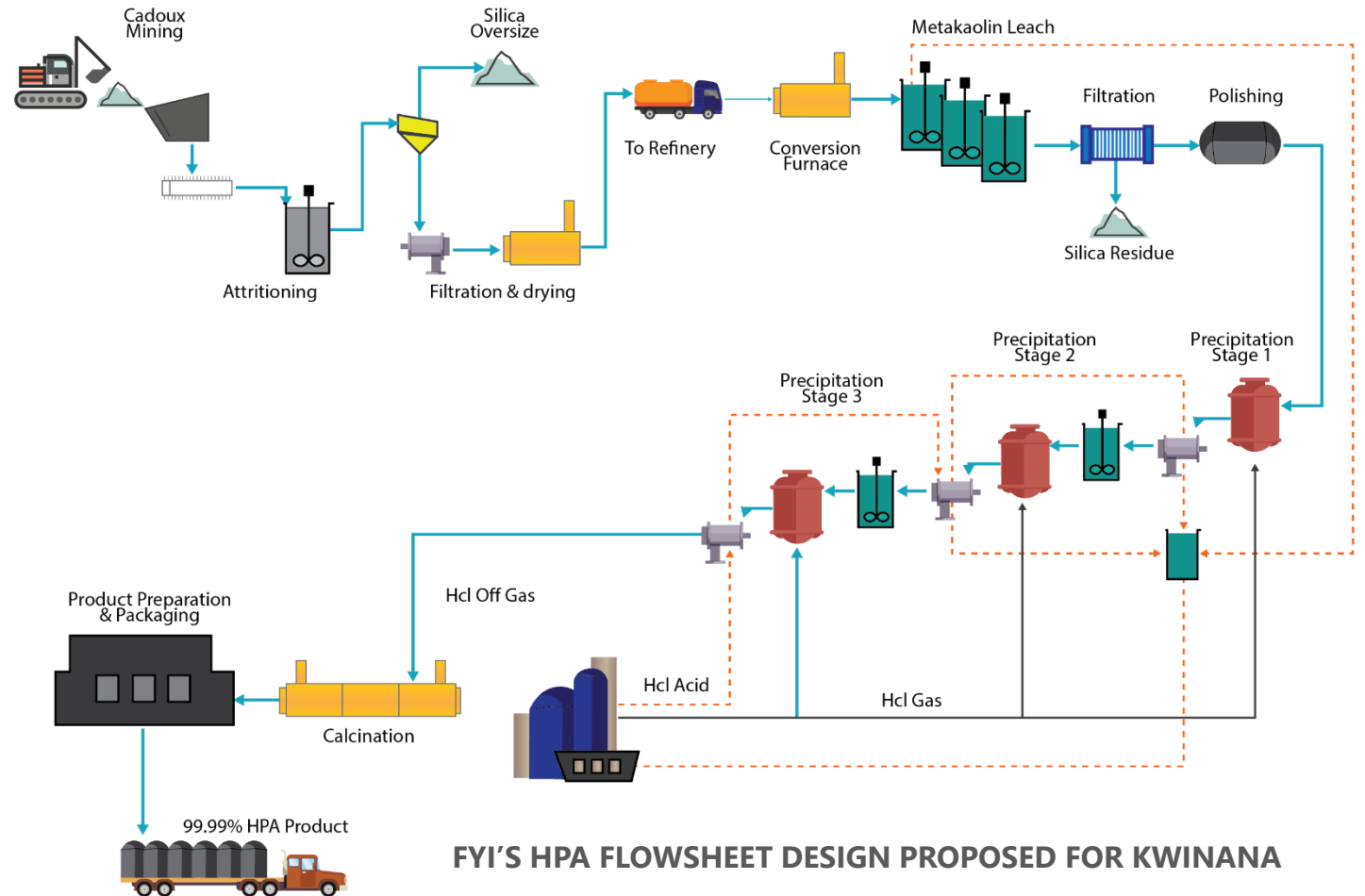
Successfully demonstrated high target grade and excellent recoveries



Low environmental footprint (non-toxic waste)



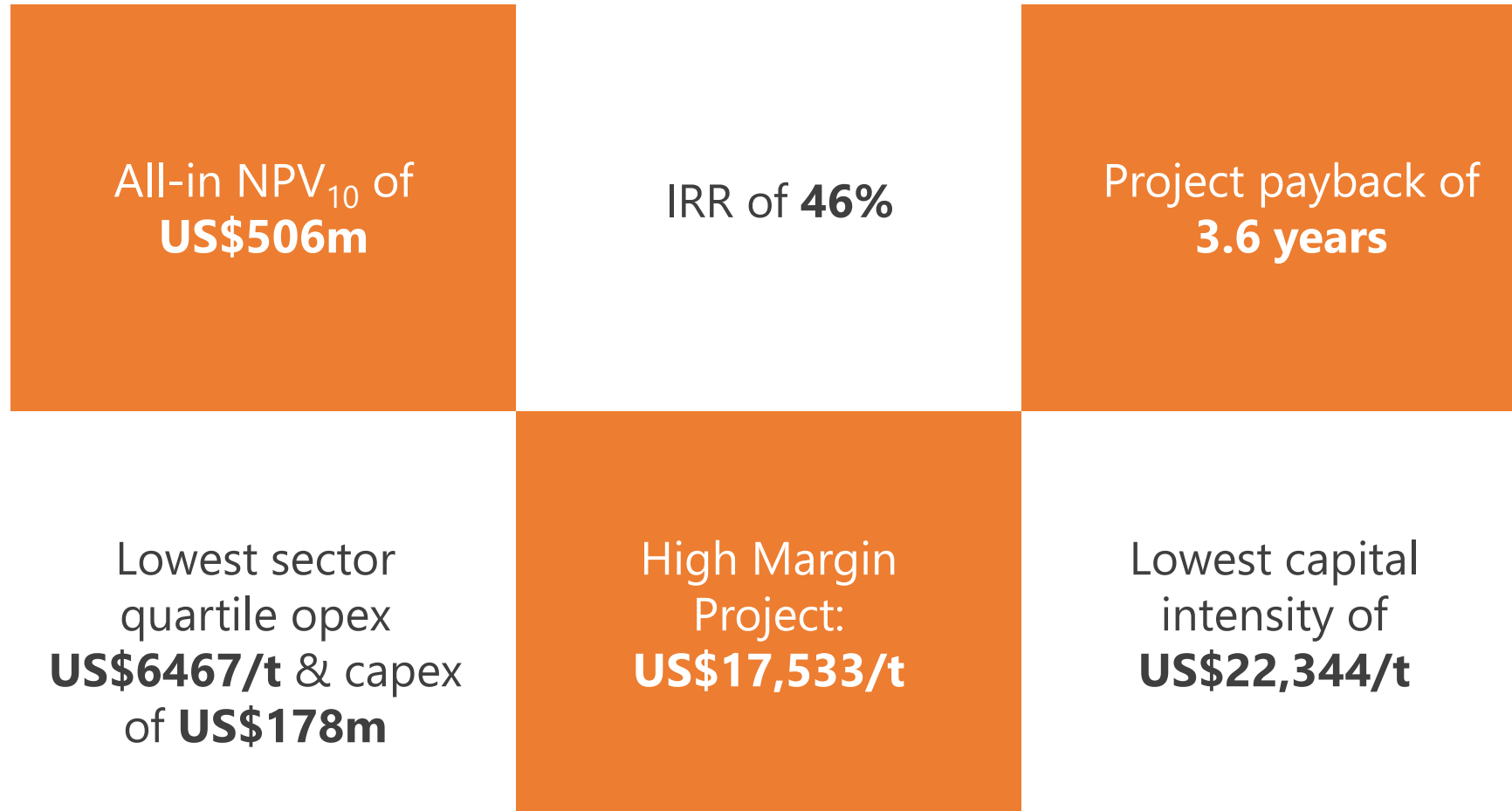
Processing plant planned for Kwinana's 'Battery Alley'



FYI'S HPA FLOWSHEET DESIGN PROPOSED FOR KWINANA

OUTSTANDING PFS DELIVERED IN SEPTEMBER 2018

MARKET LEADING PROJECT ECONOMICS



PILOT PLANT

DEMONSTRATING QUALITY HPA PRODUCT FOR END USERS / CUSTOMERS



Critical to commercialisation of process flowsheet and engineering design



Continuous and upscaled production



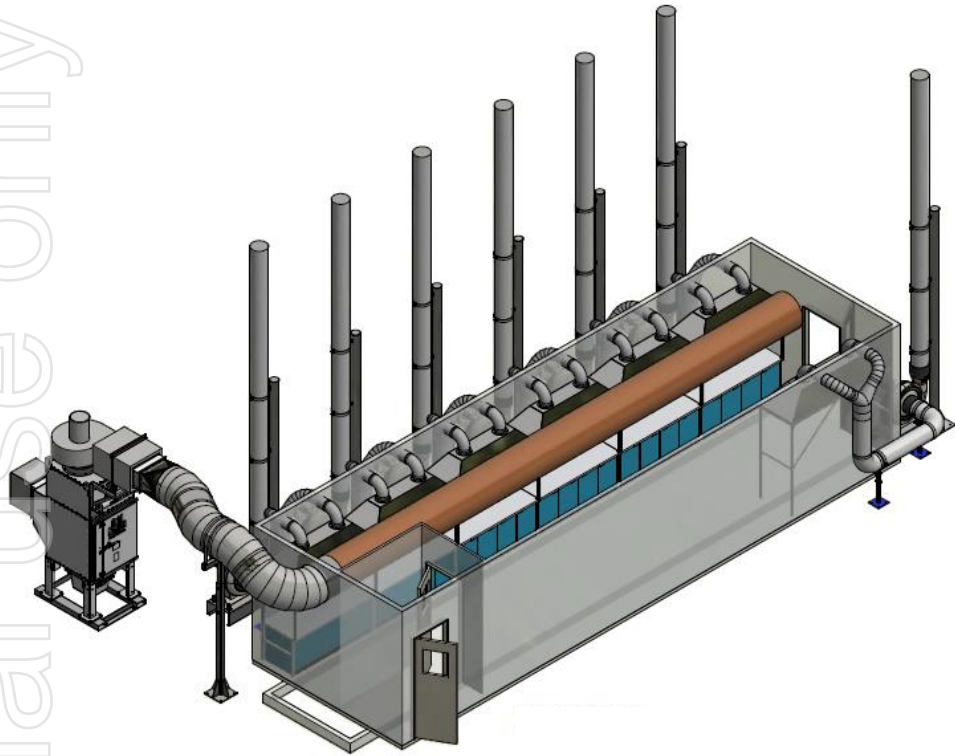
Important data discovery and development learning process and project de-risking



Essential step for project metrics and funding.

FYI'S PILOT PLANT

PROOF OF CONCEPT



Isometric design view



External view



Internal view



Personal use only

STRONG FOCUS ON MARKET ENGAGEMENT

FUNDING STRATEGY

FYI is examining a number of funding options to finance its future activities and development costs, including:

- Off-take
- Joint venture
- Cornerstone investor
- Project debt
- Equity
- Strategic investor



FYI IS HEAVILY ENGAGED IN PRODUCT MARKETING AND OFF-TAKE

Strong focus on market engagement



Structured approach to achieving off-take and financing



Multiple rounds of meetings conducted
(China/South Korea/Japan)



HPA trial product to be shipped by request to market participants (HPA manufacturers, traders)

KEY RE-RATING MILESTONES – 6 MONTHS DELIVERY

Progressing towards project development following an excellent PFS, project de-risking and finalising of a DFS.

Pilot plant commissioning



Last stage (7th) of locked cycle testwork

Early October



Pilot plant trial production

Detailed Engineering



Continues post pilot results

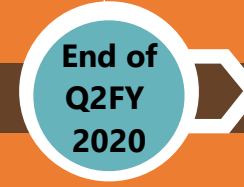
Product forwarded to customers (3 weeks of qualification)

Mid October



Complete DFS

End of Q2FY 2020



Following DFS

Project financing

FYI SUMMARY



Robust HPA strategy founded on sound technical principles and project de-risking



Best-in-class project technicals with lowest quartile capex and opex



Innovative processing route delivering superior quality product



Compelling technical & geographical and business model advantages



Positive long-term market fundamentals



Expert study manager team and capabilities for successful project delivery



Argument for ideal project delivery timing coinciding with forecast market growth



Ground floor entry to an emerging growth sector with significant upside

ersonal use only

For further details please contact:

Roland Hill

Managing Director
FYI Resources

+61 8 6313 3920

info@fyiresources.com.au

www.fyiresources.com.au

108 Forrest Street, Cottesloe WA 6011

ASX: **FYI**

fyi
Resources Limited

APPENDIX – PFS PROJECT ECONOMICS

ITEM	UNIT	AMOUNT
HPA production	tpa	8,000 (with capacity to expand)
Production grade	Al ₂ O ₃	> 99.99%
Capital cost	US\$m	178.8
Capital cost / t	US\$/t	22,344
Forecast average cost of production (C1)	US\$/t	6,467
Assumed HPA selling price / t	US\$/t	24,000
Operating margin	US\$/t	17,533
Operating margin	%	~270
Exchange rate	A\$:US\$	0.75
Average annual EBITDA	US\$m	128
First phase of operations - total revenue (> 50 years)	US\$m	11,376
First phase of operation - annual revenue	US\$m	190
Project NPV	@10%	506
Project IRR	%	46
Project payback	yrs	3.6