



31 March 2021

FYI HPA PROJECT NPV INCREASES TO US\$1.014Bn

Key points

- Updated DFS results in increase in NPV reflecting technical and commercial progress of FYI's HPA Project development and positive value re-rating
- FYI's innovative HPA process technology and process design validated through extensive test work and pilot plant trials
- Updated DFS results in compelling project metrics demonstrated in revised NPV
- HPA product marketing research confirms strong HPA industry growth and pricing support

FYI Resources Ltd (**ASX: FYI**) (FYI or the Company) is pleased to announce its updated definitive feasibility study (**Updated DFS**) of the Company's high purity alumina (**HPA**) Project resulting in an increase in net present value (**NPV**). The Updated DFS has been prepared by the Company in conjunction with selected industry specialists. The resulting NPV increase reflects the major technical improvements, substantial Project de-risking and other key commercial developments accomplished since the initial DFS announcement on 11 March 2020.

The Updated DFS and revised NPV have confirmed the HPA Project is not only technically and financially robust, but the development work completed since the initial DFS in March 2020 demonstrates continued project de-risking and positive value re-rating.

Following the release of the Company's initial DFS, enhancements that have been made to the Project include detailed flowsheet advances, process redesign, production optimisation and extensive supporting testwork (including multiple pilot plant trials) to optimise and de-risk the integrated HPA strategy.

After taking into account the technical and commercial improvements, market applied metrics relative to its peer group, updated inputs (exchange rate) and discount rate (8%) FYI has updated the base NPV of the project by **87%** to **US\$1.014 billion**.

Major Highlights of Updated DFS and NPV

FYI's Updated DFS highlights an increase in the forecast financial returns and a de-risking for the Company's HPA Project. The points are summarised below:

- Sensitivity analysis demonstrates robust project economics
- Updated DFS inputs are supported by additional pilot plant trials and data validation
- Updated DFS conducted by leading hydrometallurgical experts
- The Updated DFS and financial analysis was completed to an overall accuracy of -10% to +15%
- Updated key project NPV metrics include:
 - post-tax NPV_{8%} of US\$1.014 billion
 - project post-tax IRR 55%
 - annual production
 - 8,500 tpa 4N HPA (99.99% Al₂O₃)
 - 1,500 tpa 5N HPA (99.999% Al₂O₃)
 - average selling price US\$26,400/t (basket 4N and 5N pricing)
 - annual project revenue US\$261m
 - annual project EBITDA US\$186m
 - project capex US\$202m
 - project opex US\$6,661
 - project payback 3.2 years
 - AUD:USD exchange rate of 0.75 (from 0.70)



FYI Resources Managing Director Roland Hill said: "The update to the Company's initial DFS was an obvious progression in the development of our HPA project strategy. The quality and robustness of our HPA Project was demonstrated in our initial DFS released in March 2020. Since then, the Company has continued the evolution of the Project through further process design improvements, detailed test-work via numerous pilot plant trials and other supporting activities to assist in de-risking the Project. There has also been a number of external factors such as the AUD:USD exchange rate movement that has had an impact on the economics of the project. It was evident that a more up-to-date financial case be presented to the market.

The Updated DFS outcome represents a persuasive economic case and demonstrates the merit of the Project in being developed as potentially one of the HPA sector's highest quality, lowest capital and operating cost projects".

FYI believe the increased NPV outcome is a more appropriate reflection of the HPA Projects achievable potential and signifies the greater confidence in the Project given the progress accomplished by the Company in the last 12 months.

It should be noted that the level of detailed work and supporting inputs into the Updated DFS and financial forecast (NPV) is substantial and is the outcome of a further 12 months of development progressed from the Company's initial DFS.

Key changes to Updated DFS and NPV

Discount rate	Revised from 10% to 8% reflecting further Project development resulting in increased project confidence
HPA annual production	Revised from 8,000tpa to 10,000tpa based on expected HPA market growth
HPA product mix	Sales assumptions includes 8,500tpa of 4N and 1,500tpa 5N. FYI has demonstrated that 5N production is possible and will likely become a material contribution to future sales
HPA pricing	Product pricing has increased from US\$24,000/t (100%4N) to an assessed basket price of US\$26,400/t (85% 4N / 15% 5N) reflecting a conservative selling price
Exchange rate	The AUD:USD exchange rate has moved from 0.70 to 0.75
Capex	Exchange rate has impacted the project capex from US\$189 to US\$202 due to the AUD component of the cost base (expressed in US\$)
Opex	Exchange rate has impacted the project opex from US\$6,217/t to US\$6,661/t due to the AUD component of the cost base (expressed in US\$)

Intangible Improvements to FYI's HPA Project

- Further attraction of major industry participants and potential off-take parties to FYI's HPA strategy (including Alcoa of Australia)
- Advancing of product marketing and potential off-take party assessment
- Progressing Project financing alternatives providing visible financing options
- WA Government recognition of HPA Project status through granting of Lead Agency support
- Environmental, Social and Corporate Governance (ESG) and carbon footprint targets designed to lower Project carbon emissions.

Summary of Updated DFS

The Updated DFS is based on the initial DFS of March 2020 which considers FYI's innovative, low temperature, low pressure leach and precipitation process flowsheet for the production of high quality HPA. The Updated DFS combines detailed technical and financial inputs that result in the study having a -10% + 15% degree of accuracy and confidence - suitable for this level of study.

FYI's process design basis was the adoption and advanced refinement of a conventional leach and precipitation flowsheet which was adapted and optimised to commercialise the production of high quality, high purity alumina. The process refinements are specific to FYI's unique feedstock and its amenability through the innovated flowsheet resulting in excellent production characteristics including achieving lowest cost quartile for both opex and capex.



A revised financial model and resulting NPV was completed based on all the initial DFS, pilot plant trials and other supporting studies used in calculating and estimating the project capital and operating costs as well as all other operating parameters.

FYI is continuing to progress the development of its HPA Project strategy and advancing to the final engineering stage for the HPA Project. The Company's updated DFS confirms the Project's potential ability to generate outstanding financial returns over the initial modelled life of 25 years.

Purpose of Updated DFS and revised NPV

- to provide the market with quantifiable project development progress and de-risking measurement
- the Updated DFS defines a clear pathway for development to commercial production of HPA
- the Updated DFS and supporting pilot plant testwork demonstrates production of high quality, high purity 4N and 5N HPA suitable for LED and Lithium-ion battery markets
- the ongoing process refinements and optimisations to the process design suggest potential for further improvements
- to demonstrate the technical and financial robustness of the HPA project via continued process development testwork and trial production
- the response from potential customers to FYI's high quality HPA is very positive

The initial DFS established an outstanding set of financial results for the Company's HPA project. The initial DFS demonstrated the quality of the innovative flowsheet and the robustness of the Company's HPA project and outlined the clear pathway forward to developing an integrated HPA refining business in the favourable operating jurisdiction of Western Australia. FYI has taken the foundation work and improved the overall project metrics by a further 12 months of continuous project improvements.

The Updated DFS and revised NPV demonstrates the progress achieved with FYI's HPA Project.

Key DFS assumptions and outcomes include:

DFS version	Initial	Updated
Discount rate	@10%	8%
NPV (post tax)	US\$543Mn	US\$1.014Bn
IRR (post tax)	46%	55%
Payback period (years) (post tax) (inc ramp up)	3.6	3.2
Assumed exchange rate A\$/US\$	0.70	0.75
Modelled DCF Life of Project (years)	25	25
Total Sales (initial 25 years) no escalation	US\$4.7Bn	US\$6.1Bn
Total Project net operating cash flow (25 years)	US\$2.8Bn	US\$3.3Bn
Annual EBITDA (average)	US\$133Mn	\$186Mn
Cash flow after finance and tax	US\$88Mn	US\$131Mn
Shares on issue (as at publication of the DFS)	212.77Mn	321.09Mn
Capex (US\$) (8,000 tpa)	US\$189Mn	US\$202Mn
Capex/t (US\$/t)	US\$23,575	US\$20,200
Opex (US\$/t) - Life of Mine C1 costs, FOB Kwinana	US\$6,217	US\$6,661
Tonnes Processed (initial 25 years) (kt)	189	247
Production Target (tpa) (initial 25 years)	8,000	10,000
Proven + Probable Ore Reserves (@ 24.8% Al ₂ O ₃ kt)	3,205	3,205
Ore Reserve life (years)	25	25
JORC Resources (million tonnes)	11.3	11.3

Updated DFS highlights (comparison to initial 11th March 2020 DFS)



Key economic assumptions for the Updated DFS include:

Currency	United States dollars Future sales contracts for HPA are usually based in US\$. The financial model (NPV) is prepared in US\$. All A\$ inputs are converted to US\$ based on an exchange rate of A\$1.00 = US\$0.75.
Project life	25 years
Ore Reserves	Total Proven + Probable Ore Reserve alone supports a 25 years project. Mining will occur solely from the Proven + Probable Ore Reserve during the project life.
Corporate tax rate	30%
Government royalty	2.5%
Depreciation rate	20%
HPA Production	Steady state production from Proven + Probable Ore Reserves over life of mine, with HPA production in the first year being 5,600 tonnes per year and thereafter 10,000 tonnes per year.
Shares on Issue	321,095,989 (as at time of publication of Updated DFS)
NPV estimation discount rates	Financial modelling has been calculated using at 8% discount rate (previously 10%).
Capital costs	US\$202Mn, estimated at an accuracy of -10%/+15% as per recommended practice 18R-97 for process industries set out by AACE International for Class 3 estimates
Capex contingency	15% of capital cost
Sustaining capex	2% of capital costs, annually
Operating costs	US\$6,661/t HPA produced; costs estimates have been developed from first principles with an accuracy of -10%/+15%
Mine closure costs	US\$5Mn as per Mine Closure Plan
Plant maintenance	7.2% of capital costs
Sales price	US\$26,400 per dry metric tonne average of 4N (8,500tpa) and 5N (1,500tpa) product. The average price was estimated dependent on product type, product quality, country, contract terms and sales quantity. The total revenue is constant based on the forecast average basket price and does not include any escalation in commodity price or inflation
Debt financing	Up to 70% of capex (depending on the finance structure)
Borrowing rate	7.5%, tenor 6.5 years and grace period 2 years
Upfront financing cost	8% (assumption)
Working capital	US\$5Mn
Accounts receivable	30 days

Revised DFS Comparison

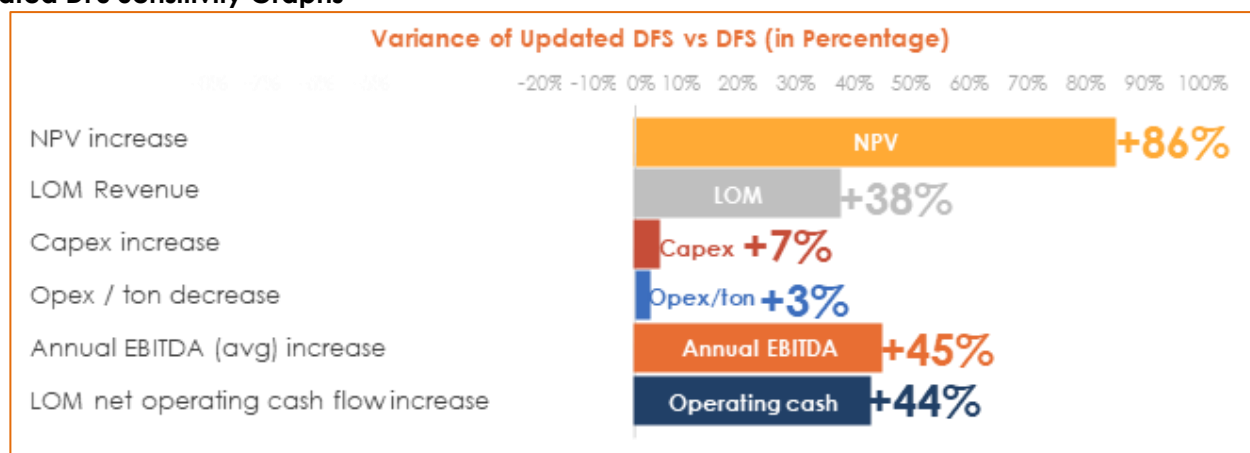
The Updated DFS is a result of studies undertaken to demonstrate FYI's HPA process flowsheet and design. FYI has enhanced and optimised the Project flowsheet progressively since the release of the initial DFS with the continuity of technical input via the various team of expert study managers.

The initial DFS and the Updated DFS / revised NPV outcome are both considered to be in the range of -10% /+ 15% degree of accuracy.

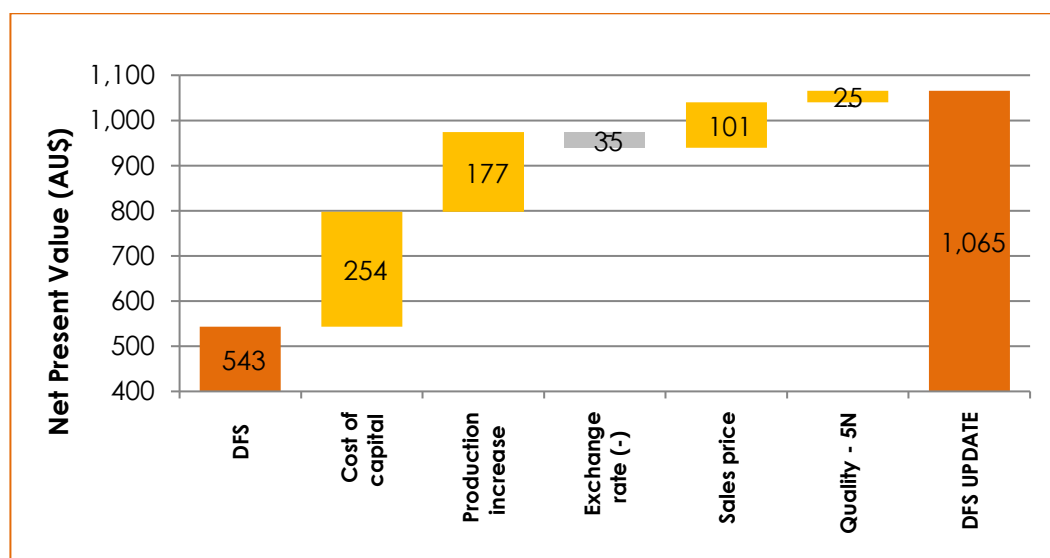
The recalculated NPV of US\$1.014Bn, demonstrates the quality of the Project and the progressive Project improvement and de-risking undertaken since the initial DFS. Additionally, limiting the nominal capex increase whilst maintaining minimal change to the opex (the opex and capex increase is largely due to the exchange rate variance) of HPA produced. The key operating and capital numbers are result of improvements achieved over the last 12 months of continued development. The key Updated DFS metrics results compared to the initial DFS results are shown graphically below:



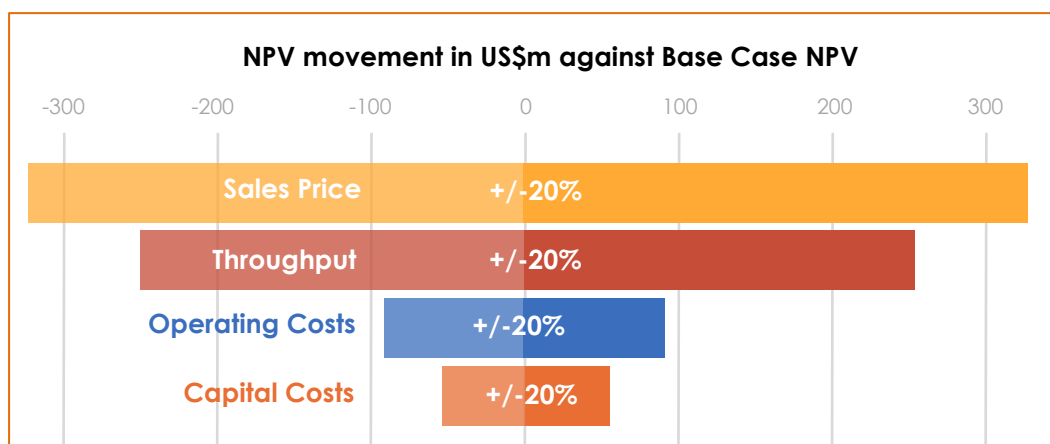
Updated DFS Sensitivity Graphs



Updated DFS variance to initial DFS



Water fall graph of Updated DFS reconciliation to initial DFS



Typhoon graph of input sensitivities to the revised NPV



HPA Market Update

FYI employs a number of methods to determine pricing and demand models for the HPA market to establish a reliable estimated sales price. This price establishing process includes the engagement of several independent commodity market research firms and direct contact with market participants.

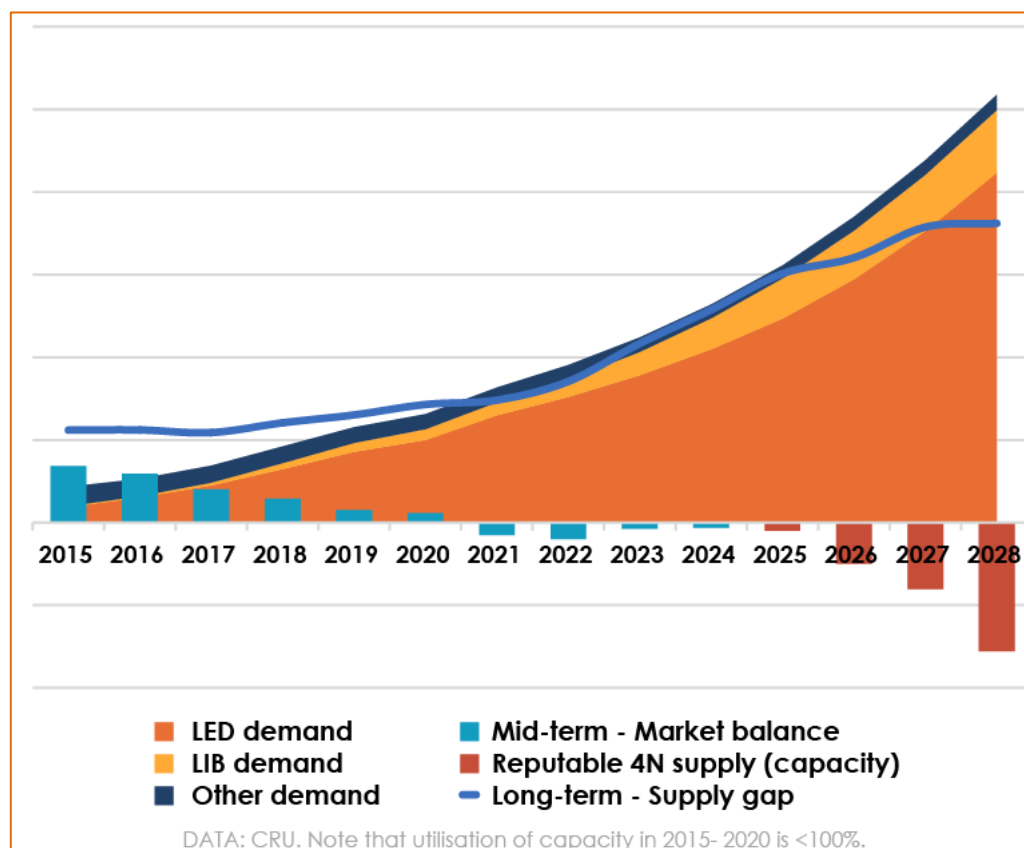
One primary source relied upon by FYI is the CRU Group, whom are a leading market intelligence and analysis firm specialising in HPA. CRU have performed the HPA market determination function for FYI in our previous feasibility studies and whose scope includes detailed breakdown of the HPA market, supply, demand and pricing. FYI mandated CRU especially for the Updated DFS, with a research report released to the Company in March 2021.

The most recent market survey and round of interviews conducted with producers, consumers, projects and other market participants in Japan, South Korea, North America, Europe and China conclude there is evidence that the HPA market is entering a phase of mild tightness. Consumers, particularly in the sapphire market for LEDs, state that supplies of reputable 4N HPA is becoming limited.

In summary, whilst it is evident that different trends are emerging in the HPA sector from the previous DFS report in March 2020, for the purposes of the Updated DFS report the focus will be on the 'performance-driven or 4N-5N market.

In terms of sales volumes, assuming unconstrained by supply of 4N+ HPA, demand is forecast to grow from ~30 kt in 2021 to over 104 kt in 2028, a CAGR of 18.7%. Pricing has been noted by CRU to be in the range of:

- US\$15/kg for mis-represented, off-specification product largely centering on the Chinese domestic market
- US\$56/kg for premium, high quality and reliable supply and specialist applications
- US\$100/kg (up to) for spot and small parcels



HPA market demand and deficit forecast 2015 to 2028 – CRU HPA Report 2021



FYI understands that realising price premiums for high quality 4N material relies upon building strong relationships with customers, being able to adjust specifications to meet customers exacting requirements and consistently supplying material to the agreed specification. Achieving and maintaining a reputation for delivery of reliable and consistent specification will become a very powerful marketing tool.

The modelled HPA demand is forecast to grow rapidly at approximately 18.7% CAGR between 2021 to 2028. As a result of the demand, CRU models the HPA market to tip into deficit in 2021, as reputable 4N and 5N as current supply capacity fails to meet the market demand as production has not kept pace with demand growth. FYI sees tremendous potential opportunities as a result.

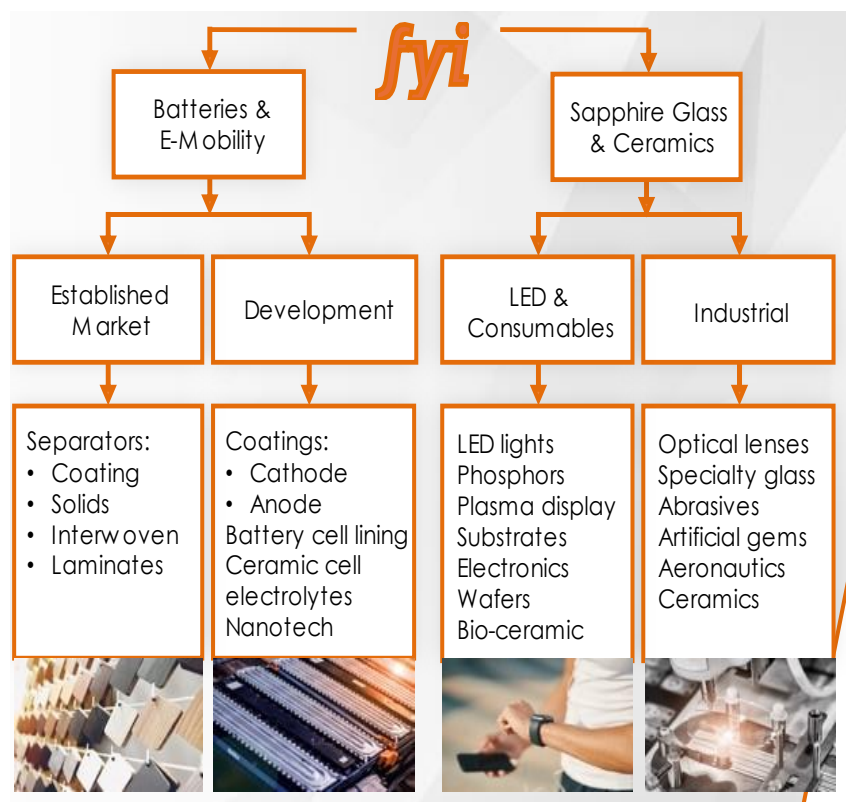
Lithium-ion Batteries

Lithium-ion batteries (LIBs) represent the largest potential growth sector for HPA demand over the coming decade. LIBs are currently used in portable electronics such as mobile phones and laptops; however, their high energy density (energy contained vs weight) makes them ideal for use in the surging electric vehicle market.

CRU understands that separator manufacturers are seeking out high-quality HPA for their coatings. This signifies a discerning customer class that will pay the higher price for quality HPA product.

LEDs

Due to strong headline demand for LED units driven by broad application development, market acceptance and replacement of inferior and less efficient alternatives, LED driven demand for 4N and 5N HPA is likely to grow from 20ktpa in 2020 to 85kt in 2028, with a CAGR of 19.8%.



Production costs

Market research, supported by CRU findings, suggests an increasing global trend of HPA production costs. This migration of increasing cost of goods sold has moved from ~\$15/kg in 2018 and rising to ~\$21/kg (nominal) in 2028. This cost hike is attributed to rising Chinese labour costs, climbing aluminium prices and European/Japanese carbon pricing.



FYI HPA – Low Environmental Impact / High ESG

The mining sector faces many material environmental, social and governance (ESG) issues. Certain mining operations can have significant and long-lasting environmental and social impacts on the community.

These ESG issues include:

- Excessive energy use and greenhouse gas emissions
- Disproportionate effluent and waste production
- Land degradation and negative impact on biodiversity
- High water use
- Community Relations
- Community Health and Safety concerns

FYI is operating in a highly challenging environment. Declining resource accessibility, growing pressure to implement reporting standards and increasingly complex permitting processes from governments are major concerns in achieving and maintaining a licence to operate.

FYI has made significant efforts during the development of the Company's HPA Project strategy to address ESG issues and the projects sustainability. FYI is establishing stable frameworks and transitioning to increase its ESG standards along with programmes and initiatives to reduce its legacy impact and potential risks.

Along with designing its HPA Project and process flowsheet to minimise its environmental impact and greenhouse gas contribution, FYI also recognises its social and governance requirements. FYI has combined these practices to identify and improve legacy issues to achieve best practices to be a leader in the sector. To quantify FYI's ESG footprint, the Company is currently being assessed and rated by an independent industry rating service.

Alcoa Australia HPA MOU

Based on the initial DFS and the development work progressing the Company's innovation process flowsheet for producing high quality, ultra-pure HPA, FYI signed a memorandum of understanding (MOU) (ASX announcement 8th September 2020) with leading alumina producer, Alcoa of Australia Limited. The MOU will explore the possibility of Alcoa joining with FYI and furthering the development of FYI's innovative and fully integrated HPA refining project for commercialisation, as well as the establishment of offtake customers into HPA markets. The MOU establishes a pathway to progress to a joint venture following the satisfaction of certain conditions precedent.

Alcoa is a global industry leader in the production of bauxite, alumina and aluminium, a position enhanced by a portfolio of value-added cast and rolled products and select energy assets. Since developing the aluminium industry more than 130 years ago, Alcoa has built a legacy of breakthrough innovations and best practices that have led to efficiency, safety, sustainability and stronger communities wherever they operate. Alcoa of Australia Limited is owned 60 per cent by Alcoa Corporation and 40 per cent by Alumina Limited. The Australian operations represent one of the world's largest integrated bauxite mining, alumina refining and aluminium smelting systems and add value to Australia's local, state and national economies at every stage.

The conditions precedent cover further HPA pilot plant variability trials being successful and the continued cooperation having commercial benefits for both parties. FYI is developing an innovative process for the production of high quality, high purity alumina. FYI has been very successful in its development strategy and continues to advance the HPA refining process to address the supply shortfalls in the rapidly growing HPA market. The MOU will allow the parties to explore and develop respective technical capabilities and capacities in alumina production, with the potential to leverage opportunities in the HPA market.



Future Value Catalysts

The Updated DFS confirms the robustness and quality of FYI's HPA Project. Further to the Updated DFS results, there remains additional technical improvements and other commercial opportunities within FYI's HPA strategy which have not been incorporated into the updated DFS. These added opportunities may have the ability to positively impact on the Company's future valuation. These events include:

- Entering into a Joint Venture Agreement with Alcoa
- Additional process flowsheet development and demonstration
- Completion of HPA Project detailed engineering, front end engineering and final investment decision
- Continued product market qualification
- Signing of customer MOU's and strengthening marketing relationships
- Advancing financing arrangements
- Investigation of additional internal revenue streams
- Investigation into broader battery HPA utilisation and markets
- New demand growth sectors in HPA appearing through development channels.

This announcement regarding the Updated DFS should be read in conjunction with the initial DFS announcement of 11 March 2020.

Authorised for release by Roland Hill, Managing Director.

For more information please contact:

Roland Hill

Managing Director

Tel: +61 414 666 178

roland.hill@fyiresources.com.au

Simon Hinsley

Investor & Media Relations

Tel: 0401 809 653

simon@nwrcommunications.com.au



Cautionary Statements

Substance of DFS and Updated DFS

The initial DFS and Updated DFS referred to in this announcement is a study of the potential viability of the production of high purity alumina from feedstock from the Cadoux Kaolin Project. It has been undertaken to understand the technical and economic viability of the Project.

The initial DFS and Updated DFS assumes as a 25-year Project life based only on Proved and Probable Ore Reserves (100%). The initial DFS and Updated DFS is based on the material assumptions set out in the initial DFS announcement of 11 March 2020 and updated assumptions set out in this announcement. 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 the feasibility studies will be achieved.

To achieve the range of outcomes indicated in Updated DFS, funding in the order of A\$202 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.

General and forward-looking statements

The contents of this announcement 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 announcement.

Some statements in this announcement 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 announcement, 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 announcement nor any information contained in this announcement or subsequently communicated to any person in connection with this announcement is, or should be taken as, constituting the giving of investment or financial advice to any person. This announcement does not take into account the individual investment objective, financial or tax situation or particular needs of any person.



Competent Persons Statements

Ore Reserves

The information in this announcement 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 the DFS announcement released 11 March 2020 and 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 announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements 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 announcements.

Mineral Resources

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 Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements 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 announcements.

Metallurgy

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 the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcements.