



29 OCTOBER 2021

ASX: FYI | OTC: FYIRF

FYI Activity Report for the quarter ended 30 September 2021

Key points

- **FYI and Alcoa sign binding Term Sheet for the joint development of FYI's innovative HPA process**
- **Alcoa to contribute up to US\$243m of the estimated US\$250m project development costs**
- **Roadmap for staged, de-risked project development agreed**
- **FYI appoints Non-Executive Director with extensive ESG experience**
- **ESG ranking and ratings improvements achieved**
- **FYI signs MOU for enhanced HPA-carbon anode coatings for lithium-ion battery market**
- **HPA product marketing program progresses**
- **Metallurgical test work continued including preparation for an extended Pilot Plant production run**
- **HPA market reach and product appraisals progress**

FYI Resources Ltd (ASX: FYI) ("FYI" or "the Company") is pleased to release its Quarterly Activities Report for the period ending 30 September 2021.

Signing of Binding JV Term Sheet with Alcoa to advance the HPA refining Project

FYI is developing an innovative process design for the integrated production of high quality, high purity alumina (HPA) predominantly for electric vehicle (li-ion batteries), sapphire glass (LED) and other broader tech applications.

FYI and Alcoa of Australia Limited (Alcoa) signed a binding Term Sheet for the joint development of FYI's HPA refining process following an extensive due diligence period of over 12 months, including a detailed review of FYI's process flowsheet, process production efficiencies, reviewing testwork results and analysis, capex and opex review, the HPA market (both supply and demand) and of alternative HPA refining processes.

The signing of the binding Term Sheet signals the commencement of a structured development strategy building upon FYI's intellectual property and Alcoa's industrial expertise with the intention to become a major producer in the HPA industry and capitalise on the ~ 17% GAGR* forecast growth for HPA.

Alcoa is one of the world's leading alumina producers with over 100 years of project development and operational experience. Joint development of FYI's HPA project with Alcoa is considered by FYI to be the most effective pathway to de-risk the development of the project and to ensure its success. The involvement of Alcoa will help to transform the HPA project from the current R&D and design stage to full production.

The joint development is expected to unlock significant project value, as demonstrated in FYI's updated definitive feasibility study (DFS) report released to the ASX on 8 April 2021, by combining Alcoa's technical expertise and experience in the construction and operation of alumina refining facilities with FYI's innovative HPA processing flowsheet, industry knowledge and customer contacts.



The key terms of the binding Term Sheet Agreement include:

- HPA project equity: Alcoa 65%; FYI 35%
- Alcoa contribute up to US\$242m of US\$257m (94% of term sheet capital forecast)
- Structured 3 phase development for production of up to 9,000tpa HPA
- Future joint venture is sole HPA vehicle for both parties
- FYI IP and jointly developed IP protected by Agreement
- Cadoux mining lease remains an asset of FYI

Benefits Alcoa brings to the HPA strategy include:

- Majority of the project funding
- Project development discipline and expertise
- World leading alumina production experience
- Technical excellence
- Global reach and extensive relationships
- Well-resourced structure to draw upon – technical, operational, management and marketing

Extended Pilot Plant Production

During the quarter, ongoing preparations including refitting and equipment purchases and commissioning were undertaken ahead of the extended HPA trial production run at the Company's pilot plant in Welshpool, Western Australia.

The main objectives of the pilot plant trial are to improve elements of the process flowsheet and processing efficiencies including material construction and handling. The extended production run will produce larger quantities of HPA that will be directed towards product qualification and assessment by prospective customers and offtake parties.

FYI and Alcoa have established a structured customer target matrix of priority ranked off-take groups ranging from existing and follow-up parties to emerging and recently introduced parties. The product marketing will be directed to both LED and battery separator markets predominantly in Europe, the United States and East Asia.

The deferred trial production run is on schedule to commence 16 November with several of the specially designed replacement regulators already received, with the balance in transit.

Product Marketing

The marketing approach has been structured jointly by FYI and Alcoa. HPA product development continued over the quarter to address specific requests from potential customers with the focus on one off-take group in particular which is involved in the battery separator industry.

FYI and Alcoa are designing a structured HPA product marketing approach drawing upon Alcoa's international marketing team and global presence. The marketing plan builds upon, the prior marketing outreach undertaken by FYI, as well as incorporating new potential customer channels introduced by Alcoa.



Growth and Downstream Opportunities

Pursuing broader growth and downstream HPA opportunities is viewed as an important augmentation to the longer-term joint business plan.

Through the multiple off-take marketing channels established by FYI, it was made evident that a number of HPA related opportunities are emerging which could add further dimension to the HPA sales.

These opportunities include the recently signed non-binding memorandum of understanding to develop enhanced HPA doped carbon coating of anodes for the lithium-ion battery market with diversified battery anode materials company EcoGraf Limited.

Industry research** has demonstrated HPA-doped carbon coatings enhance battery anode performance, by minimising first cycle losses during battery charging cycles. The collaboration will also include evaluation of HPA and graphite composites for new battery technologies and materials in clean energy applications.

HPA is used as a nano thickness thin coating on the separator sheets used in lithium-ion batteries. Alumina coated separators improve the ability to withstand high rates of charge and discharge, battery performance, durability and overall safety of the batteries.

The battery anode coatings market is a significant value proposition given the forecast increased demand for anode materials.

The initial technical program to produce and evaluate HPA-doped carbon coated anodes will include review and assess:

- the efficient utilisation of HPA, and/or its derivatives, and formulation as a coating precursor for battery anode material and separators
- development of an appropriate Atomic Layer Deposition Coating (ALD) process using HPA as coating precursor specific to EcoGraf's high purity carbon
- Battery Coin Cell testing for evaluating the performance of alumina coated carbon anodes

ESG Specialist Appointed as Non-Executive Director

Dr Sandy Chong was appointed as an independent non-executive director with special responsibility to assist the Company with environmental, social and governance (ESG) matters.

With ESG issues growing in importance globally, the ability to manage ESG risks and opportunities is increasingly important to FYI's license to operate and the future impact on the Company's bottom line.

Dr Chong's career experience and awards include being a Harvard alumnus, winner of the 2020 Executive of the Year for the US Stevie® International Business Awards and being awarded 2016 Singapore Management Consultant of the Year. Dr Chong brings significant experience in leadership roles to FYI's ESG objectives. She founded and chaired the United Nations Association Sustainable Development Goals forums series in WA, serves on industry councils, non-profit boards and is an Adjunct Professor for Curtin University of Technology, Dr Chong has advised government trade agencies in Australia and Singapore, corporations and businesses in international market and communication strategies.

Through the appointment of Dr Chong, the Board will benefit from her skills and experience in general corporate governance as well as her focusing on the identification and prioritization of the Company's ESG issues to provide practical, value-driven sustainability ESG guidance.

FYI Sustainability and ESG

ESG Rating

FYI acknowledges its responsibilities as an emerging HPA producer and the project's sustainability and ESG obligations. FYI has adopted a globally recognised ESG rating framework under which the Company has established a baseline standard and intends to improve on these ESG standards and reduce its legacy impact and potential environmental and other sustainability project risks.

During the quarter, Sustainalytics has provided FYI with a revised ESG score of 23.8 (initial ESG rating of 28.0 out of 100) and a ranking of 5th (previously 9th) out of 153 peers. Of note, FYI was top ranked in 3 categories and top 5 ranking in a further 5 categories.

ESG Reporting platform

In conjunction with our ESG rating, FYI has committed to quarterly ESG reporting and disclosures as a major step in building its long-term ESG credentials. FYI undertakes to regularly demonstrate our progress in making disclosures via a recognised ESG reporting platform.

FYI's ESG matters will be disclosed against the World Economic Forum (WEF) universal ESG framework and reported on a quarterly basis. FYI's initial ESG dashboard report is included (below) with commentary addressing progress made during the quarter.

FYI's Quarterly ESG Activity Summary

- The company improved its ESG rating to 23.8 from 28 as the original rating. The Company ranks 5 out of 153 Diversified Metals Industry and 3 out of 32 in the Aluminum sub-industry, which is the 4th and 7th percentile respectively
- The Company appointed Dr Sandy Chong, an ESG specialist, as a non-executive Director
- FYI receives positive results from the Future Battery Industries Cooperative Research Centre's (FBI-CRC) Legacy project studies which indicated waste may be developed into an economically profitable by-product
- The discussions with a number of parties with regard to supplying renewable energy for the project is ongoing



ESG Quarterly Progress Report

fyi FYI Resources (FYI)

Socialsuite

ESG Go Quarterly Progress Report

Action
E Explanation
D Development
R Reported
V Verified
A Audited

Reporting Period 2 (Jul - Sep 2021)

PRIORITY TIMEFRAME DISCLOSURE MATURITY
 A1 A2 A3 A4 A5

GOVERNANCE



GO-01-A	Setting purpose	Q3 2021	D	R	D	D		
GO-02-A	Governance body composition	Q1 2022	D	D	R	R	R	R
GO-03-A	Material issues impacting stakeholders	Q4 2021	R	R	R	R	R	D
GO-04-A	Anti-corruption practices	Q3 2021	R	V	D	D		
GO-04-B	Mechanisms to protect ethical behaviour	Q3 2021	R	V	R			
GO-05-A	Integrating risk and opportunity into business process	Q3 2021	D	R	R			

PLANET



PL-01-A	GHG emissions	Q4 2021	D	R	D			
PL-01-B	TCFD implementation	H1 2022	D	D				
PL-02-A	Land use and ecological sensitivity	Q4 2021	D	R				
PL-03-A	Water consumption	Q4 2021	R	R	D	D		

PEOPLE



PE-01-A	Diversity and inclusion	Q3 2021	D	D	D	D	D	
PE-01-B	Pay equality	Q3 2021	D	D				
PE-01-C	Wage level	Q3 2021	D	D	D			
PE-01-D	Child, forced or compulsory labour	-	E					
PE-02-A	Health and safety	Q3 2021	D	R	D			
PE-03-A	Training provided	Q4 2021	D					

PROSPERITY



PR-01-A	Rate of employment	Q4 2021	D	D	R			
PR-01-B	Economic contribution	Q4 2021	R	R	R			
PR-01-C	Financial investment contribution	Q4 2021	D					
PR-02-A	Total R&D expenses	-	V	V				
PR-03-A	Total tax paid	-	V	V				



Action
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ESG Go Dashboard	DISCLOSURE					MATURITY					Period 1, Apr-Jun 2021				
	A1	A2	A3	A4	A5	A1	A2	A3	A4	A5	DISCLOSURE	MATURITY			
	A1	A2	A3	A4	A5	A1	A2	A3	A4	A5	A1	A2	A3	A4	A5
Governance															
GO-01-A	Setting purpose	D	D	D							D	R	D	D	
GO-02-A	Governance body composition	D	D								D	D	R	R	R
GO-03-A	Material issues impacting stakeholders	R	R	R	R	R	R	D			R	R	R	R	D
GO-04-A	Anti-corruption practices	R	R	D	D						R	V	D	D	
GO-04-B	Mechanisms to protect ethical behaviour	D	R	D							R	V	R		
GO-05-A	Integrating risk and opportunity into business process	D	R	D							D	R	R		
Planet															
PL-01-A	GHG emissions	D	D								D	R	D		
PL-01-B	TCFD implementation	D									D	D			
PL-02-A	Land use and ecological sensitivity	D	R								D	R			
PL-03-A	Water consumption	R	R								R	R	D	D	
People															
PE-01-A	Diversity and inclusion	D	D								D	D	D	D	D
PE-01-B	Pay equality	D	D								D	D			
PE-01-C	Wage level	D	D	D							D	D	D		
PE-01-D	Child, forced or compulsory labour	E									E				
PE-02-A	Health and safety	D	D	D							D	R	D		
PE-03-A	Training provided	D									D				
Prosperity															
PR-01-A	Rate of employment	D									D	D	R		
PR-01-B	Economic contribution	D									R	R	R		
PR-01-C	Financial investment contribution	D									D				
PR-02-A	Total R&D expenses	R	R								V	V			
PR-03-A	Total tax paid	R	R								V	V			



Planned December Quarter Activities include:

The planned activities for the next quarter include:

- Progress the development of the Demonstration and Primary HPA production facilities
- Finalise the formal Joint Development Agreements with Alcoa
- Commence the extended pilot plant trial
- Continual improvement and transition of ESG rating and reporting
- Continued product market qualification and assessment in collaboration with Alcoa
- Implement initial technical program to produce and evaluate HPA-doped carbon coated battery spherical graphite
- Continue with identified growth and downstream opportunities
- Upgrade from OTCQB market to OTCQX
- Make key personnel appointments in line with the HPA development schedule

Corporate

Subsequent the end of the quarter, the Company has progressed the R&D claim for FY2021. The provisional claims totals approximately \$1.0m and is expected to be received in the December quarter.

Treasury

The Company ended the September Quarter with a cash balance of ~\$10.2m.

ASX Additional Information

ASX listing rule 5.3.1 and 5.3.2 - Exploration and evaluation cash payments (net of GST) during the quarter were approximately \$1.31m. Details of exploration and evaluation and development activities during the September 2021 quarter are set out in this report.

There were no substantive mining production activities during the quarter.

ASX listing rule 5.3.5 - Appendix 5B, Section 6.1 – description of payments: During the quarter \$66k was paid to Directors for current and accrued director fees.

This announcement is authorised for release by Roland Hill, Managing Director

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Interest in Mineral Tenements at 30 September 2021

Tenement	Location	Interest at the beginning of the quarter	Interest at the end of the quarter
E70/4673	Western Australia	100%	100%
M70/1388		100%	100%
WMM SPLs (6)	Thailand	100% (under application)	100% (under application)

About FYI Resources Limited

FYI's is positioning itself to be a significant producer of 4N and 5N HPA in the rapidly developing high-tech product markets.

FYI applies both an ESG and economic overlay of the Company and its operations to ensure long-term sustainable and shareholder value is created via the development of the Company's innovative, high quality, ultra-pure HPA project.

HPA is increasingly becoming the primary sought-after input material for certain high-tech products principally for its unique properties, characteristics and chemical properties that address those applications high specification requirements such as LED's and other sapphire glass products.

The longer-term driver for HPA, with forecasts of >17% CAGR*, is the outlook for the burgeoning electric vehicle and static energy storage markets where the primary function is in the use as a separator material between the anode and cathode in batteries to increase power, functionality and safety of the battery cells.

The foundation of the HPA strategy the Company's moderate temperature, atmospheric pressure innovative process flowsheet. The strategy's quality attributes combine resulting in world class HPA project potential.

* CRU HPA Industry Report 2021

** *Synthesis of Alumina-Coated Natural Graphite for Highly Cycling Stability and Safety of Li-Ion Batteries. January 2019, Journal of Chemistry. DOI:10.1002/cjoc.201800559*

Cautionary Statements

Substance of Updated DFS

The 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 original Updated DFS announcement was released to ASX on 8 April 2021.

The Updated DFS assumes a 25-year Project life based only on Proved and Probable Ore Reserves (100%). The Updated DFS is based on the material assumptions set out in this announcement and its appended DFS summary. 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, Ore Reserve announcement released 29 October 2018 and the DFS announcement released 11 March 2020 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 announcements 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.