24 NOVEMBER 2021

ASX:FYI I OTCQX:FYIRF

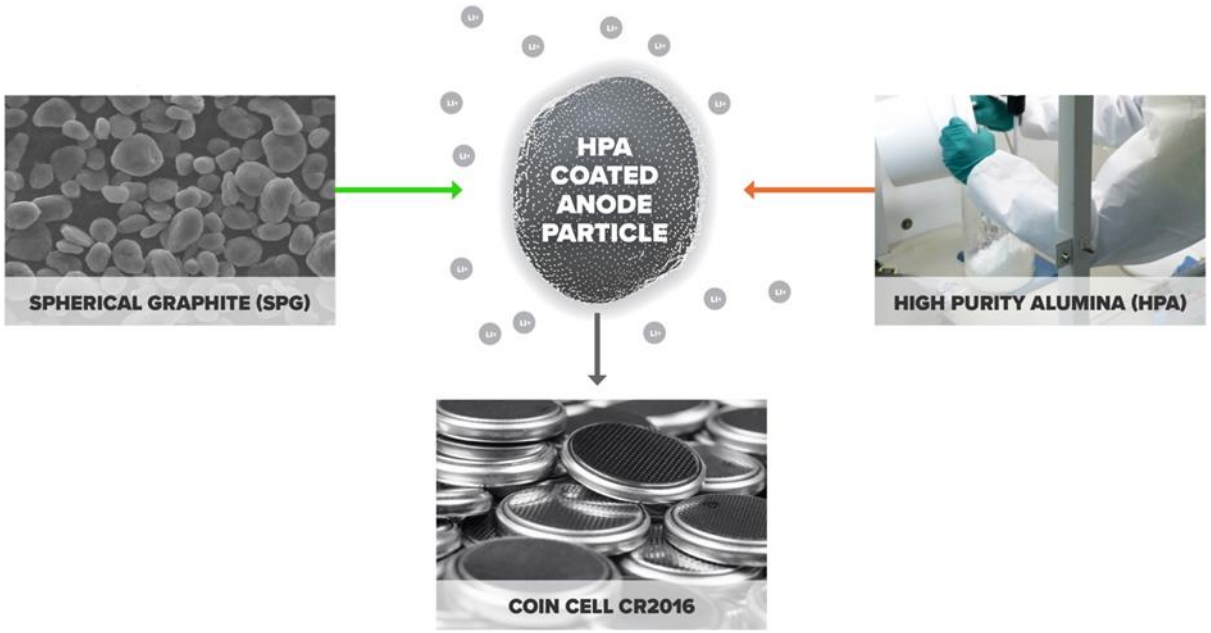
Innovative HPA Battery Coatings Program Commenced

FYI Resources Ltd **("FYI" or "the Company") (**ASX:**FYI;** OTCQX:**FYIRF;** FSE:**SDL)**, is pleased to announce with EcoGraf Limited (**EcoGraf**) (ASX: **EGR**; FSE: **FMK**; OTCQX: **ECGFF**) the joint program to develop an enhanced High Purity Alumina (**HPA**) high density battery anode coatings material.

The aim of the program is to develop an enhanced coatings material that will improve battery performance. The innovative technical program is being undertaken in a leading US commercial battery material research facility using FYI's high-quality nanoparticle HPA and EcoGraf's spherical graphite (**SPG**).

The program will provide comparative assessment of the electrochemical performance of the jointly developed enhanced HPA coated SPG against industry standard coated SPG in standard CR2016 coin cells.

The HPA coated anode material is a major active anode material (AAM) used in Lithium-ion anode cell manufacturing and is potentially a significant value addition that is complementary for both companies' developments in Australia.



Unit 8-9, 88 Forrest Street
Cottesloe
Western Australia 6011
ACN 061 289 218

Tel: +61 8 9313 3920
info@fyiresources.com.au
www.fyiresources.com.au

The sales price reported by Benchmark Minerals Intelligence for coated anode (subject to the specification) ranges between US$6,000 to US$10,000 per tonne, with demand forecast to increase 30%pa driven by the global trend of industry transitioning to low carbon emission technologies.

The development of value-added battery materials is consistent with the Federal Governments critical and battery 'modern manufacturing strategy' and Western Australia's 'future battery industry strategy'.

The economic impact of developing AAM in Australia could be significant. The indirect economic benefits from battery material manufacturing in Australia is estimated to be 3 times higher than goods sold at all stages of the value chain (refer figure below).

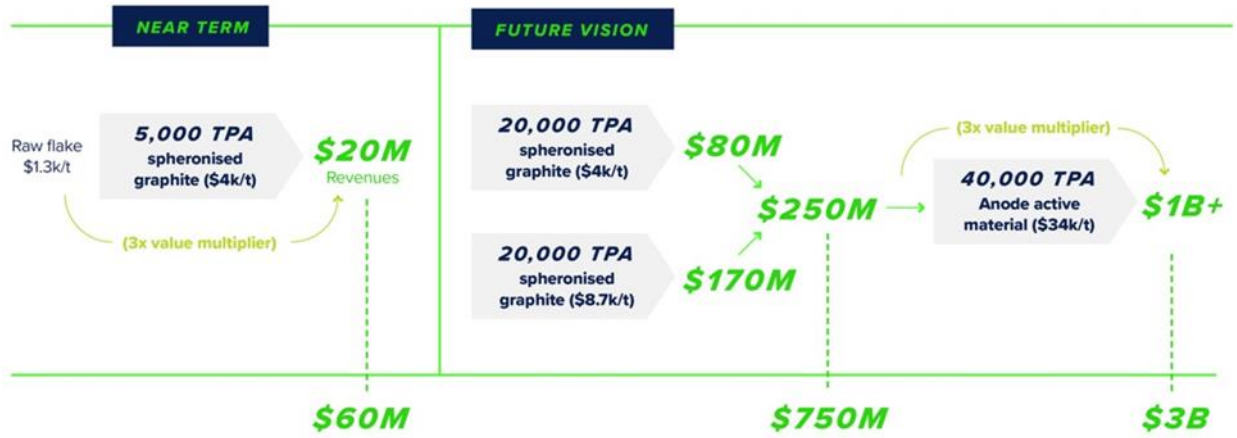


Figure after CSIRO. Dr Jerad Ford, Mission Lead, Critical Energy Metals recent webinar outlying the future vision and value multiplier of battery cell manufacturing benefit to Australia

Enhanced HPA Anode Coatings Program

The technical program will commence with characterisation of key properties of FYI's nano HPA and EcoGraf's purified SPG as raw materials for the active anode material in a Lithium-ion battery system.

This will be used to formulate and prepare solvent-compatible dispersion of HPA nano powders of various particle sizes to be applied as ultra-thin HPA onto the pitch coated SPG as an enhanced active anode material.

The pitch coated SPG and enhanced HPA doped coated SPG will be applied to copper substrates to create a negative electrode for incorporation into CR2016 coin cells for electrochemical performance and cycling tests.

The program is expected to take 3 months and includes scope to perform long-term cycling of the best formulation of coated anode in both half-cell and full cells (~100 test cycles).

This announcement is 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

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*