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James Cropper plc

('James Cropper', the 'Company' or the 'Group')

TFP HYDROGEN ANNOUNCES EXPANSION OF ELECTROLYSER COATING CAPACITY IN NORTH AMERICA

James Cropper plc (AIM:CRPR), a global market leader in advanced materials, luxury packaging and paper products, today announces that its wholly-owned subsidiary, TFP Hydrogen Products ("TFP Hydrogen"), a leading provider of high-performance coatings for PEM water electrolyser components, plans a threefold increase in its US-based coating production capacity in the next 12 months. This significant expansion will enable the Company to benefit from the rapidly increasing demand for its coatings which improve the efficiency and durability of PEM water electrolyzers, one of the foremost technologies in the transition to using green hydrogen.

TFP Hydrogen has installed a specialised electrolyser coating technology at its site in Schenectady, New York, USA to provide local production and support for North American customers. This new line, which can support 600MW electrolyser manufacturing capacity per annum, is now fully operational and its rapid installation and commissioning forms the basis of the future expansion plans.

Scalable manufacturing

The new line is based on the specialist coating technology that TFP Hydrogen has developed in Cornwall, UK and has been specifically designed with scalability in mind to facilitate and respond to the exponential growth within the green hydrogen market. The [U.S. Department of Energy \(DOE\)](#) anticipates that U.S. electrolyser capacity alone will have to increase from 0.17 gigawatts ("GW") today to over 1,000 GW by 2050. The line provides a blueprint for future TFP Hydrogen coating lines worldwide, supporting the electrolyser manufacturing hubs being established globally as the technology adoption accelerates.

TFP Hydrogen's coating technology addresses the key material challenges in using titanium [PEM electrolyser](#) components. TFP Hydrogen's technology improves long term component performance and durability and an increased system lifetime, ultimately lowering the long-term cost of green hydrogen production.

Commenting on the expansion plans James Cropper CEO, Steve Adams, said: "In line with our strategic realignment to focus on large, growing end markets with higher margin opportunities, we are pursuing an aggressive innovation roadmap that supports the rapid growth of the hydrogen economy. The fast-growing renewable energy and decarbonisation markets are creating an ever-greater need for novel and high-performance materials and our continued investment in the US facility provides a local supply and technical ground support for North American electrolyser manufacturers, as well as supporting a lean, short, supply chain, which enables rapid response to the significant demand increases the hydrogen sector continues to experience."

Hydrogen Technology Expo 28-29 June 2023

To support the projected increase in US production capacity, TFP Hydrogen will be exhibiting its advanced electrochemical materials on stand 730 at the forthcoming [Hydrogen Technology Expo](#) in Houston Texas, USA from 28-29th June. Solutions for the electrolysis and fuel cell markets include coatings for porous transport layers (PTLs), meshes and bipolar plates (BPPs), alongside a range of high-performance electrocatalyst powders and gas diffusion layer substrates (GDL).

Dr. David Hodgson, Managing Director of TFP Hydrogen, will also be speaking on the 29th June at the show's associated conference, focussing on "Reducing the Cost of Green Hydrogen Generation: Every Microvolt Counts". The presentation will demonstrate how TFP Hydrogen's materials help to reduce the total lifetime cost of green hydrogen production and enable PEM electrolyzers to progress towards achieving the '[Hydrogen Shot](#)' - a DOE initiative that seeks to reduce the costs of clean hydrogen by 80% to \$1 per 1 kilogram in 1 decade ("1 1 1").

To register for the Hydrogen Technology Expo visit: www.hydrogen-expo.com/

To find out more about TFP Hydrogen visit: www.tfp-hydrogen.com

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Notes for editors:

James Cropper is a market leader in advanced materials and paper products. Led by the Cropper family for six generations, the business has an international workforce and an operational reach in over 50 countries.

Established in 1845, the Group manufactures paper, packaging and advanced materials incorporating pioneering non-wovens and electrochemical coatings.

James Cropper is a specialist provider of niche solutions tailored to a unique customer specification, ranging from substrates and components in hydrogen electrolysis and fuel cells to bespoke colours and textures in paper and moulded fibre packaging designed to replace single use plastics.

The Group operates across multiple markets from luxury retail to renewable energy. It is renowned globally for service, capability, pioneering and multi award-winning commitment to the highest standards of sustainability.

James Cropper's goal is to be operationally carbon neutral by 2030 and to reduce carbon through its entire supply chain to net zero by 2050.

James Cropper Future Energy incorporates TFP Hydrogen, and includes materials and products for fuel cells, carbon capture, batteries and wind.

Specialises in enabling customers to develop market leading solutions, in areas such as PEM water electrolysis, hydrogen fuel cells, wind energy and carbon capture. To facilitate this, the Company has strengthened their offering in the rapidly growing Hydrogen sector with the acquisition of TFP Hydrogen Products in 2021. TFP Hydrogen produces coated components for PEM water electrolysis which reduce the cost of producing Green Hydrogen, a critical part of the global transition to sustainable energy. In addition, TFP's materials not only reduce the cost of hydrogen generation, they also facilitate its use as our nonwovens are used as Gas Diffusion Layer (GDL) substrate in many of the world's hydrogen fuel cells.

James Cropper Technical Fibres focuses on markets including aerospace, defence, construction and industrial as well as in renewable energy, where there is a strong focus on enabling green technologies, such as fuel cells, green hydrogen generation, wind energy and electric vehicles. A global operation with sites in the UK and USA and a worldwide sales and support network.

Growth in the renewable energy sector and the hydrogen economy is of strategic importance to James Cropper. In the next 5 years, the aim is for the majority of sales to come from applications that support the Global drive to net zero carbon emissions, enabling the energy transition.

To find out more about TFP and TFP Hydrogen Products, the materials used and how they make a difference, please visit: www.tfpglobal.com and www.tfphydrogen.com.

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