Johnson Matthey and Plug Power Inc. partner to accelerate the delivery of advanced materials for next-generation electrolyser technology for green hydrogen, supporting the transition to net-zero

Johnson Matthey, a global leader in sustainable technologies, announced today a Memorandum of Understanding with Plug Power, a leading provider of turnkey green hydrogen solutions. Under the MoU the companies will develop a roadmap to accelerate the joint development of high-performance electrolyser technology with improved durability, increased performance, and greater energy efficiency than systems available today.

The collaboration will focus on the development, validation and incorporation of JM’s advanced materials in Plug Power’s leading electrolyser systems. The companies will also investigate the development of a closed loop recycling system for the critical platinum group metals (pgm) used as catalysts in these systems.

Johnson Matthey and Plug Power believe strongly in building the hydrogen economy and have a wealth of experience across a broad spectrum of the hydrogen economy value chain. Johnson Matthey has a proven track record and deep expertise in developing innovative high-performance coating materials, CCM technology and as the world’s largest secondary refiner of pgm is perfectly placed to drive the creation of closed loop recycling systems within the green hydrogen supply chain.

Plug Power is a leading manufacturer of electrolysers used to manufacture green hydrogen. Recently they solidified their global leadership position in green hydrogen solutions and built the foundation to lead the emerging $10T hydrogen economy. They are the largest user of liquid hydrogen and have made a significant commitment to be a major player in the generation of green hydrogen with plans to achieve 500T of capacity daily in the US by 2025, 1,000T globally by 2028. This combination of capabilities will enable Plug Power to deliver world-class systems to the market and build a sustainable value chain for the future.

“We’re excited to take our relationship with Plug Power, a leader in electrolyser systems, to the next level, working together to drive the development of world leading technologies with significantly improved performance and an integrated plan for recycling key materials,” commented Eugene McKenna, Managing Director, Green Hydrogen, Johnson Matthey. “Our CCMs draw on innovations in catalyst, membrane and additive development built over many years and which are the foundation of our Green Hydrogen business today. Equally important is to enable a sustainable energy transition, which is why we will continue to drive the creation of closed loop recycling systems within the supply chain, to recover and reuse as much critical pgm material as possible. Plug Power has an innovative electrolyser technology and their knowledge and market position make them an ideal partner.”

“The new generation of proton exchange membrane (PEM) electrolysers will require solutions that are able to meet the increasing demands on efficiency and performance. We are excited to collaborate with JM on driving the integration of leading electrolyser component technology that will bring another vital element to reach a fully sustainable green hydrogen economy,” said Rick Mason, VP Operations, Plug Power.
About Johnson Matthey

Johnson Matthey is a global leader in science that enables a cleaner and healthier world. With over 200 years of sustained commitment to innovation and technological breakthroughs, we improve the performance, function and safety of our customers’ products and in 2020 we received the London Stock Exchange’s Green Economy Mark, given to companies that derive more than 50% of revenues from environmental solutions. Our science has a global impact in areas such as low emission transport, pharmaceuticals, chemical processing and making the most efficient use of the planet’s natural resources. Today more than 15,000 Johnson Matthey professionals collaborate with our network of customers and partners to make a real difference to the world around us.

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