



Press Release – 31 January 2022

Green hydrogen from waste now a reality

Egypt project to produce 300,000 tons of green hydrogen per year

Protecting our environment involves significant challenges. Reducing the carbon footprint of energy production and the amount of waste we produce as a society are two of them. H₂-Industries has embarked on a revolutionary project to create green hydrogen using proprietary technologies by using organic wastes as feedstock for its energy production while capturing CO₂ and commercializing it, achieving carbon neutrality.

Countries and major industries are increasingly recognizing that one of the most promising routes to a zero-carbon future is the production and use of green hydrogen. However, creating green hydrogen has historically proven uneconomic. H₂-Industries, using its proprietary technology, has developed a process to create large amounts of green hydrogen from organic waste at competitive costs. The green hydrogen produced from that process can be transported and stored, using other H₂-Industries technologies, and released on demand for use in industry applications.

Waste to energy

Following a multimillion \$ investment, H₂-Industries is now poised to undertake several projects which will convert organic waste, including plastic and agricultural waste and even sewage sludge, and turning same into useable hydrogen. That hydrogen can be transported into a “carrier fluid” referred to in the industry as LOHC, which can be transported and used to fill storage tanks much like diesel, but without the carbon emissions upon use. The waste heat from the H₂-Industries’ process can be used for to generate power with steam turbines and generators.

Egypt waste to hydrogen plant – world’s first and largest on this scale

Preliminary approval has been granted to H₂-Industries by the General Authority for Suez Canal Economic Zone (SC°Zone) for the development of a 1GW LOHC Hydrogen Hub at East Port-Said which will be the first project of its type in the world. The hydrogen plant will be fed with 4 million tons of organic waste and non-recyclable plastic per year secured at the Mediterranean entrance to the canal. The Suez Canal Project will produce 300,000 tons of



green hydrogen per year at half the levelized cost of current green hydrogen production technologies, taking the cost even lower than current levels for low-carbon and grey hydrogen production.

Executive Chairman of H₂-Industries, Michael Stusch said: “This is an exciting opportunity and one that will take the tons of waste that collects in Egypt and turn it into green hydrogen. The Waste-to-Hydrogen plant is a breakthrough in making green hydrogen economically viable, helping not only reduce global CO₂ emissions but also reducing the pollution and impairment of water resources in the country.”

Green hydrogen so produced can be sold and transported for international use in 20th century infrastructure, e.g., diesel trucks carrying H₂-Industries’ LOHC or, alternatively, H₂-Industries can create low-cost synthetic diesel (eDiesel) or sustainable aviation fuel (SAF), with the captured CO₂ which is the only emission in this process, depending on international market demand for same.

More to come

H₂-Industries is also commercializing other green hydrogen products to meet the commercial needs of end users with applications ranging from the transformation of coal fired power plants to hydrogen power plants and transforming steel, cement and glass production making it CO₂ free by using H₂-Industries’ technology and green hydrogen.

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About H₂-Industries

H₂-Industries Inc. is a global hydrogen generation and energy storage solutions company headquartered in New York City, USA. Founded by Dipl.-Ing. Michael Stusch in 2010, the business focused on developing technologies that generate, store, transport and release green hydrogen using Liquid Organic Hydrogen Carriers (LOHC). The hydrogen can then be economically extracted and converted to electrical energy. At present, H₂-Industries Inc. is engaged in commercialization activities in twenty countries on five continents, collaborating with leading suppliers and consultants worldwide to facilitate the deployment of its technology. To learn more about how H₂-Industries is changing the renewable energy supply landscape, visit <https://h2-industries.com/en>.

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