Duferco Energia and Ansaldo Green Tech Partner for 1 MW Green Hydrogen Electrolyser in Sicily

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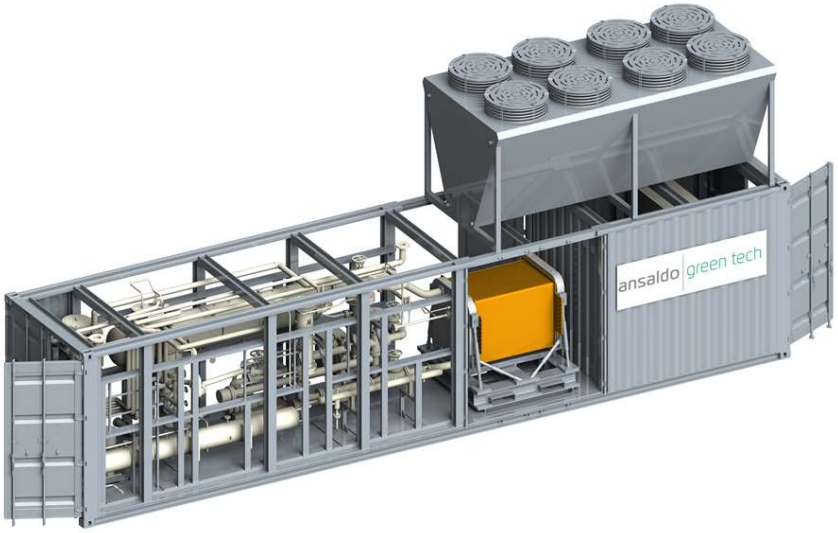

Duferco Energia and Ansaldo Green Tech have formalized a strategic agreement for the supply and commissioning of a 1 MW electrolyser at Duferco Energia's Giammoro Hydrogen Valley project in Sicily. This initiative represents a significant advancement in the development of Italy's green hydrogen value chain and supports the broader European decarbonization objectives, the companies announced.

The Giammoro Hydrogen Valley, backed by funding from the National Recovery and Resilience Plan (PNRR) via the Sicilian Region, will produce green hydrogen primarily to serve energy-intensive industries including steel manufacturing, logistics, and mobility. The project is a key component of a larger strategy aimed at establishing regional hydrogen hubs to bolster decarbonization efforts and enhance energy independence across Italy.

Ansaldo Green Tech will supply its advanced anion exchange membrane (AEM) electrolyser technology, known for its high efficiency and operational flexibility, making it well-suited for integration with renewable energy sources. The development of this system is part of the Important Projects of Common European Interest (IPCEI) initiative, supported by the European Union's NextGenerationEU programme.

Upon completion, the 1 MW electrolyser is projected to produce over 500 kilograms of high-purity (99.9 percent) green hydrogen daily, powered by a dedicated 4 MW photovoltaic plant. Annual green hydrogen production is expected to reach approximately 100 tons. This hydrogen will be targeted for industrial applications requiring gas compression, storage, and delivery infrastructure.

The electrolyser system, assembled on a new production line in Genova Campi, has been engineered for optimized energy consumption, achieving 55 kWh per kilogram of hydrogen, and rapid startup capabilities, with a warm startup time of under two minutes and a load range of 30 to 100 percent. The system is containerized within a standard 40-foot ISO module.

Key technical specifications highlight the system's suitability for industrial applications, including a hydrogen production capacity of 21 kg/h at 30 barg and oxygen production of 168 kg/h at 0.3–30 barg.

The €10 million Hydrogen Valley project in Giammoro is anticipated to stimulate regional economic growth, generate new employment opportunities, and foster sustainable energy industries in Southern Italy. The project aligns with the European Commission's RePowerEU plan, which aims to reduce reliance on imported fossil fuels and accelerate the adoption of renewable energy sources.

Massimo Croci, CEO of Duferco Energia, stated that the Hydrogen Valley project marks a tangible step towards energy transition and greater energy independence for Sicily. "This initiative will deliver significant environmental benefits while also creating new economic and employment prospects for the region," said Croci.

Vittorio Olcese, CEO of Ansaldo Green Tech, commented, "This agreement strongly validates Ansaldo Green Tech's technology, which is focused on delivering efficient and flexible green hydrogen production to decarbonize critical sectors such as mobility, logistics, and hard-to-abate industries like steel."

The green hydrogen produced at the Giammoro plant will utilize gas compression, storage, and distribution systems to connect production with end-use applications in industries traditionally reliant on natural gas. The project exemplifies the growing convergence of green hydrogen and natural gas infrastructure, with electrolyser technologies now designed for seamless integration into existing gas handling systems.

Duferco Energia, a part of the Duferco Group, has evolved into a leading energy services provider in Italy, operating across electricity, gas, sustainable mobility, and energy efficiency sectors, serving over 600,000 customers. Ansaldo Green Tech, a subsidiary of Ansaldo Energia, specializes in power generation and green energy technologies, offering microturbines and AEM electrolysers for green hydrogen production, designed for integration with renewable power systems and industrial decarbonization projects.