Press Release

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Quest One and MAN Energy Solutions building demonstration plant for large-scale Electrolyzer

- **A demonstration plant for the Modular Hydrogen Platform (MHP) large-scale electrolyzer from Quest One is being built on the MAN Energy Solutions site in Augsburg, Germany**
- **The large-scale electrolyzer can be visited by business partners during the construction phase and when in operation**
- **Test operation and field data will enable comprehensive optimization of plant operations as well as the assembly and service concept of the electrolyzer**

Electrolyzer manufacturer Quest One has started construction of a demonstration plant for its Modular Hydrogen Platform (MHP) PEM electrolyzer in Augsburg, Germany. The electrolyzer will be installed in a test stand at the Turbocharger Performance Center (TPC) on the Augsburg site of MAN Energy Solutions (MAN ES), where it will generate data in test operation for continuous optimization. With the demonstration plant, Quest One is turning large electrolyzers into a tangible experience. Operational constraints often mean that these plants cannot be viewed while they are in use at customers' sites. The joint project aims to change this: From mid-2025, it will be possible for potential customers as well as for project developers and EPC's to visit the demonstration plant. This will give them valuable insights into the construction phases, dimensions, inner workings and infrastructure.

A second objective of the joint project with MAN Energy Solutions is to continuously optimize the scale of PEM electrolyzers on the base of field data and to further refine both the system operation as well as the installation and service concept.

"It is essential to have industrial-scale electrolyzers to meet the huge demand for green hydrogen in the future. With our new hydrogen demonstration plant we will show that the technology for industrial-scale hydrogen production already exists. In particular, our PEM electrolysis technology is perfectly suited for use with renewable energy sources and stands out with a high hydrogen quality. Prospects can now experience these advantages at our demonstration plant," says Jürgen Klöpffer, Chairman of the Advisory Board of Quest One and member of the Executive Board of MAN Energy Solutions.

"Our MHP is an essential building block for decarbonizing of the industrial sector. The scalable system can be flexibly adapted to increasing hydrogen demands as the industry ramps up. The demonstration plant is an important means for us to further optimize the performance and operating parameters of the MHP. This will

ensure that our products continue to produce green hydrogen in a reliable and efficient way in the future," explains Michael Meister, COO at Quest One.

Joint project implementation

The project underlines the joint efforts of Quest One and MAN Energy Solutions to make green hydrogen a reliable fuel for the decarbonization of the industry. Through the jointly operated test stand, both partners are further expanding their knowledge and skills in the construction, project management, operation and maintenance of large-scale industrial electrolyzers. Quest One is thus also taking a further step in scaling up its own product portfolio for projects ranging from ten to several hundred megawatts of electrolysis capacity. Continuously increasing electrolysis capacity is an important prerequisite for the company's goal of avoiding up to one percent of global greenhouse gas emissions by 2050 through the implementation of its products.

Construction started at the end of 2024 with the installation of the freshwater treatment. The plant will be assembled over the course of 2025, so test operations can start by the beginning of 2026. Potential business partners will be able to already gain insights into the construction phase and visit the plant onsite in Augsburg in 2025.

Industrial-Scale hydrogen production

The MHP is currently the largest PEM electrolyzer in Quest One's product portfolio. Its scalable modular system makes it particularly suitable for industrial production of green hydrogen. Module blocks with an output of 10 megawatts can be expanded and combined to create plants with an electrolysis capacity from 10 to several hundred megawatts. The system is optimized for easy indoor installation on preassembled skids. Each 10-megawatt block is equipped with integrated process water treatment and an electrical power supply.

Funding under the PEP.IN program

The development of the demonstration plant is being funded as part of the PEP.IN research project, a sub-project of the H2Giga hydrogen lighthouse project of the German Federal Ministry of Education and Research (BMBF). PEP.IN is exploring new processes for the series production of PEM electrolyzers. It looks at the entire value chain from stack production to final assembly. The aim is to make green hydrogen affordable and competitive. The scope of funding particularly covers feasibility and viability studies as well as the planning of the necessary infrastructure.

Quest One has started construction of a demonstration plant for its Modular Hydrogen Platform (MHP) PEM electrolyzer on the MAN Energy Solutions site in Augsburg (©Quest One)

About Quest One:

Quest One stands for innovation, sustainability, and a green future. As a technological pioneer, the company develops and manufactures innovative PEM electrolyzers and electrolysis stacks, enabling cost-effective, efficient, and reliable production of green hydrogen. Quest One vision is clearly defined: to use their electrolyzers to avoid 1% of global greenhouse gas emissions, making a significant contribution to climate protection. Quest One has been active in the hydrogen industry for over twenty-five years and operates at two locations in Germany and one in the United States. As part of MAN Energy Solutions, the company combines the strengths of an independent, flexible structure with the industrial experience and customer access of MAN ES, along with the expertise in series production and supply chain management of the Volkswagen group and thereby provides the key technology for the Power-to-X value chain.

Further information: www.questone.com

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