GenH2 to Deliver Mixed Refrigerant Cryogenic Refrigeration System for Future Energy Exports CRC Hydrogen Research

Helium–Neon Mixed Refrigerant System to Support Advanced Cryogenic Research at Kwinana Energy Transformation Hub

GenH2 Logo

TITUSVILLE, FL, UNITED STATES, January 8, 2026 /EINPresswire.com/ -- GenH2 Corp, a Path2 Hydrogen Company (FRA:PTHH.DE) and leader in liquid hydrogen infrastructure solutions, today announced it will collaborate with the Future Energy Exports Cooperative Research Centre (FEnEx CRC) to develop a Mixed Refrigerant (MR) cryogenic refrigeration system for deployment at its Kwinana Energy Transformation Hub (KETH) R&D facility, with delivery targeted by the end of 2026.

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> *Greg Gosnell, CEO of GenH2*

The Mixed Refrigerant system will utilize a helium–neon refrigerant blend, enabling the examination of performance and behavior of mixed refrigerants deployed in a cryogenic cooling cycle relevant to hydrogen liquefaction. The system will support validation of thermodynamic models and process simulations developed by researchers within the FenEx CRC and determine the accuracy of predicted mixed refrigerant behavior under cryogenic operating conditions.

GenH2 will engineer the system to support a broad range of experimental scenarios, in various pressure and flow rate conditions, enabling the research team to conduct a wide variety of tests. The system will be skid-mounted, providing a compact footprint, efficient use of available space, and flexibility for transport, installation, and future reconfiguration within the R&D facility.

"This project represents another important milestone in our collaboration with FEnEx CRC to advance the efficiency of hydrogen liquefaction," said Greg Gosnell, CEO of GenH2. "We are proud to apply our cryogenic expertise in support of research that will generate critical insights into mixed refrigerant performance and help enable scalable, cost-effective hydrogen

infrastructure."

The project builds upon the collaboration announced in November 2024, in which FEnEx CRC and GenH2 agreed to engineer and demonstrate a high-efficiency hydrogen liquefier with production capacity of up to 100 kg/day. The earlier initiative leverages GenH2's proprietary reverse Brayton-cycle hydrogen liquefaction technology.

GenH2-FEnEx

"This initiative is part of a project co-funded by the Australian Renewable Energy Agency (ARENA) that aims to demonstrate technologies and know-how that can lower the cost of hydrogen liquefaction. We will use this mixed refrigerant refrigeration system to further validate the process simulations and thermodynamic models that have been developed by researchers within the CRC," said Eric May, CEO of FEnEx CRC. "By examining mixed refrigerant behavior under hydrogen-relevant cryogenic conditions, we will be better positioned to design improved, high-efficiency liquefaction cycles that can be scaled to much larger capacities."

Together, the liquefier demonstration and the Mixed Refrigerant cryogenic refrigeration system form a complementary research platform at KETH, enabling deeper investigation of mixed refrigerant cooling cycles and supporting the development of more efficient and scalable hydrogen liquefaction technologies.

Delivery of the Mixed Refrigerant system in late 2026 will further strengthen the Kwinana Energy Transformation Hub's role as a leading center for clean energy research and hydrogen export technology development.

About FEnEx CRC
FEnEx CRC is an Australian not-for-profit organization established to future-proof energy exports through industrial-scale research and innovation. Established in 2020, FEnEx CRC brings together industry participants, governments, innovative research universities and international affiliates to collaborate on projects that address the key challenges now facing Australia's energy exports.

FEnEx CRC research is supported by a grant from the Commonwealth Department of Industry, Science and Resources through the CRC program. The CRC's flagship project – the Kwinana Energy Transformation Hub – is also supported by a grant from the Government of Western Australia through its Investment Attraction Fund. KETH will deliver a multi-user, open-access technology testbed that provides a low-risk live environment for demonstrating new

technologies and processes as well as training facilities for the hydrogen, decarbonization, and energy transition sectors. For more information on FEnEx CRC, please visit https://www.fenex.org.au.

About GenH2

GenH2 Corp. is a subsidiary of Path2 Hydrogen AG (FRA: PTHH.DE), a German company listed on the Frankfurt Stock Exchange. GenH2 is a technology leader in liquid hydrogen infrastructure systems, including Zero-Loss Controlled Storage and advanced hydrogen liquefaction. The company focuses on the production of standardized equipment to speed midstream infrastructure buildout for hard-to-decarbonize sectors. The technology team includes former NASA Hall-of-Fame scientists with decades of experience researching, engineering, and building hydrogen solutions. Learn more about GenH2 at https://genh2.com/.

About Path2 Hydrogen AG

Path2 Hydrogen AG (FRA:PTHH.DE), formerly known as Philomaxcap AG, is a management holding company focused on the hydrogen industry. In 2025, a capital increase led to the acquisition of GenH2 Corp., a US-based company specializing in liquid hydrogen technology and equipment. Please visit www.path2hydrogen.com

Melissa Perlman
BlueIvy Communications
+ +1 561-310-9921
email us here
Visit us on social media:
LinkedIn
Facebook
X