

Linde builds the world largest PEM electrolyser

ITM Power sold a 24 MW electrolyser to Linde for installation at the Leuna Chemical Complex in Germany, the world's largest PEM (Proton Exchange Membrane) electrolyser plant. The 24-megawatt electrolyser will produce green hydrogen, supplied to Linde's industrial customers and refuelling stations.

The electrolyser will be built by ITM Linde Electrolysis GmbH, a joint venture between Linde and ITM Power, using high-efficiency PEM technology. The plant is due to start production in the second half of 2022.

ITM Power is British energy storage and clean fuel company produces polymer electrolyte membrane electrolysers for hydrogen production. Linde is an American-German, Irish headquartered multinational chemical company. Linde claims to have the largest liquid hydrogen capacity and distribution system in the world. It also operates hydrogen storage cavern with a 1000 km long pipeline network to supply hydrogen to its customers. So far it installed around 200 hydrogen fueling stations and 80 hydrogen electrolysis plants globally.

Hydrogen Mobility Europe (H2ME) announced key finds after the first phase completed

H2ME, a € 170 million hydrogen mobility project involving nearly 50 organisations, [published its final report](#) upon completion of its first phase since initiated in 2016. So far, 630 hydrogen fuel cell EVs are deployed in 10 countries with 37 new hydrogen refuelling stations in 8 countries. This means that 14.5 million km driving mileage and 147 tonnes of hydrogen dispensed through 68,000 refuelling events. The FCEVs deployed completed up to 600 km of driving range on a single tank. In Germany, 20 of the more than 90 stations are built under the H2ME project.

The second phase of deployment will develop more refuelling stations, support green hydrogen production, and target all types of vehicles. However, more focus should be given to high mileage and heavy-duty applications. Incentives such as purchase grants and tax exemptions can further support the FCEVs.

Mitsubishi Power claims the first position in the Americas energy storage market

Mitsubishi Power claimed to be the largest energy storage supplier in the Americas in 2020 with 151,000 MWh orders for the energy storage capacity. That account for utility-scale and behind-the-meter technologies such as a battery, pumped hydro, and green hydrogen storage.

In March 2020, Intermountain Power Agency ordered Mitsubishi Power JAC gas turbine for 840 MW Intermountain Power Project in Delta, Utah, for which Mitsubishi Power guaranteed the ability to use 30% green hydrogen fuel. Magnum Development partner with Mitsubishi Power to produce green hydrogen and store it in a salt cavern with a capacity of 150,000 MWh in Delta, Utah. Both projects are start operation in 2025.

Black & Veatch Joins Hydrogen Council

Black & Veatch, a US engineering company, announced that it joined the Hydrogen Council. The company is actively involved in developing, designing and constructing hydrogen solutions covering delivering, storage and carbon capture technology. The company also launched a new organisation which focuses on delivering environmental solutions.

Robotic Research and Gaussin to develop zero-emission vehicles

Robotic Research LLC, a US autonomous driving technology and solutions company, partnered with Gaussin, a French clean and intelligent freight and transportation solutions company, to develop zero-emission heavy-duty trucks and shuttle buses using Robotic Research's AutoDrive® technology.

BioSolar changed its corporate name to NewHydrogen

BioSolar Inc, a developer of energy storage technology and materials, plans to change its corporate name from NewHydrogen Inc, which would better reflect its business focus on green hydrogen production. NewHydrogen said that it is developing a technology which will replace rare earth materials in electrolyser with cheap materials.

Chart Industries and Matrix Service Company signs MoU

Chart Industries Inc signed a memorandum of understanding (MoU) with Matrix Service Company to develop hydrogen solutions in North America, including fuel stations, hydrogen liquefaction plants, marine bunkering, spaceship fuelling and marine bunkering.

Chart Industries Inc is US manufacturer of manufactures cryogenic equipment and Matrix Service Company is a US-based industrial contractor which design, build and maintain energy and industrial infrastructure.

Israel's GenCell Energy to support Iceland' ECS with its power solution

GenCell Energy, an Israeli producer of fuel cell energy solutions, said that it would deliver its GenCell A5 off-grid power solution to power Emergency Communications System (ECS) station in Reykjavik, Iceland in February 2021. The GenCell A5 off-grid power generator is based on alkaline fuel cell technology and extracts hydrogen from liquid ammonia. The solution is developed to produce green off-grid power to the telecom market.

Johnson Matthey and SFC Energy AG signed a long term new multi-million-pound deal

Johnson Matthey will supply 400,000 Direct Methanol MEA fuel cell components to SFC Energy AG (SFC), in a million pound worth deal. The three years agreement will start in February 2021 and last until March 2024. Both companies will also develop the membrane electrode assembly (MEA) that makes up the stack. The long term deal will give SFC Energy some price stability. Johnson Matthey is a UK chemical company, and SFC Energy is a German supplier of hydrogen and direct methanol fuel cells for stationary and mobile hybrid power solutions.

Germany invest €700 million on hydrogen research

Germany will support three zero-emission technology projects with around € 700 million in funding. The three projects are H2Giga, H2Mare and TransHyDE. H2Giga will work on electrolyzers' production; H2Mare will explore hydrogen production and fuel using offshore wind turbines to reduce costs; TransHyDE will research hydrogen transportation.