
ZURICH, SWITZERLAND, JUNE 9, 2021

ABB and Axpo partner on project aimed at making green hydrogen more accessible and affordable

Companies sign Memorandum of Understanding to co-develop a pilot project in Italy.

ABB has joined forces with Swiss utility Axpo to develop modular green hydrogen production plants in Italy, that aim at creating an optimum operating model to produce affordable, green hydrogen.

The two companies will apply their complementary skills to achieve their joint vision of more affordable green hydrogen, with ABB harnessing its automation, electrification, and digital leadership in industrial operations and Axpo's experience as an established energy provider.

Initial work will include feasibility studies that explore ways to reduce operating costs and ensure a low carbon footprint, with the aim of identifying synergies that will support the standardization, modularization, efficient and flexible production of green hydrogen.

Cost of production currently is a major barrier to adoption of green hydrogen. Green hydrogen, which is produced solely with renewable sources, is approximately six times more expensive today than grey hydrogen to produce and between two to three times more expensive than hybrid "blue" hydrogen, both of which are produced using fossil fuels as an energy source*.

Peter Terwiesch, President of ABB's Process Automation business area said: "As technology partner we focus on the areas where we can make the greatest difference. In this project, our aim is to leverage our automation, electrical and digital technologies and domain expertise to minimize the total cost of producing green hydrogen, which includes reducing the cost of running the plant. This is essential to unlock the potential of green hydrogen and enable its widespread uptake in the future."

Axpo Italia's Head of Origination & Business Development, Simone Rodolfi, commented: "We are fully committed to exploring the potential of green hydrogen as part of our strategy to facilitate the energy transition. There has been much collaboration between Axpo and ABB in recent years and today's agreement reinforces that relationship, enabling both companies to become important players in this promising segment."

This project reflects a wider initiative from ABB which is joining forces with customers and partners to explore opportunities and technologies, to build a resilient hydrogen ecosystem for a low carbon future. In addition to the collaboration with Axpo, ABB is working with Lhyfe, to install control solutions to automate production of its first green hydrogen project in France.

In the Asia-Pacific region, ABB is supporting the Hydrogen Energy Supply Chain (HESC) project which aims to produce hydrogen safely and efficiently in Australia and then transport it to Japan, in one of the world's first efforts to commercialize hydrogen liquefaction and transportation.

The company is also working with Hydrogen Optimized to develop an integrated solution that supports the use of high current water electrolysis technology in large scale green hydrogen production systems for application across chemical, utility and transportation sectors.

ABB and Axpo have a long tradition of working together successfully and solutions from ABB are playing an important role in helping the company create and deliver energy in an efficient, safe and sustainable way. Among the latest projects is the installation of ABB Ability™ Smart Sensors and ABB Ability™ Condition Monitoring that have converted the motors at one of Axpo's hydropower plants in Switzerland into smart, wirelessly monitored devices. In addition, the ABB Ability™ Condition Monitoring solution was chosen by Axpo to support the digitalization of the company's power plants in Italy.

Axpo is Switzerland's largest producer of renewable energy and an international leader in energy trading and the marketing of solar and wind power. The company's 5,000 employees combine experience and expertise with a passion for innovation. Axpo develops innovative energy solutions for its customers based on state-of-the-art technologies in 40 countries in Europe, North America and Asia.

ABB (ABBN: SIX Swiss Ex) is a leading global technology company that energizes the transformation of society and industry to achieve a more productive, sustainable future. By connecting software to its electrification, robotics, automation and motion portfolio, ABB pushes the boundaries of technology to drive performance to new levels. With a history of excellence stretching back more than 130 years, ABB's success is driven by about 105,000 talented employees in over 100 countries. www.abb.com

*"Green hydrogen cost reduction: Scaling up electrolysers to meet the 1.5C climate goal" (irena.org)

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