

2G delivers 100% hydrogen CHP to the UK

The European Marine Energy Centre (EMEC) is collaborating with Highlands and Islands Airports Limited (HIAL) to decarbonise heat and power at Kirkwall Airport through green hydrogen technology. 2G Energy was selected to deliver a CHP plant which generates heat and electricity of 100% hydrogen – The first one in the UK.

Runcorn, 23rd Feb 2021 – This project supported by the Scottish Government, forms part of a package of initiatives being driven by EMEC and HIAL to decarbonise the airport. A range of opportunities were identified in an energy consumption study delivered by EMEC through the ReFLEX Orkney project. The study found that space and water heating demand in the airport terminal represented the biggest source of greenhouse gas emissions after aircraft operations. 2G's hydrogen-ready CHP system will be coupled with the airport's existing heating system to meet the heating and power requirements of the main airport buildings. Due to be deployed for an extended trial period at the airport, the CHP plant will use green hydrogen supplied by EMEC to generate electricity as well as recover and use by-product heat to deliver an efficient and comprehensive energy solution.

2G already with plenty of experience on 100% hydrogen CHP

Mark Holtmann, Managing Director of 2G UK is proud about the development success: "2G are strong innovators of CHP technology installing thousands of CHPs worldwide. We cover a variety of different gas types; however hydrogen is by far the most exciting application to date. Even though there are already 2G CHPs operating on 100% hydrogen around the world, we look forward to a strong and successful partnership with Doosan Babcock to deliver the first 2G 100% hydrogen CHP solution in the UK using our 'agenitor' range. We look forward to this project becoming a stepping-stone for many other industries to follow in the UK."

CHP technology is the backbone technology for a 100% renewable energy supply of the future

Also from a headquarters point of view the project is of high importance to show the key role of CHP technology to ensure a resilient, affordable and sustainable supply of energy in the future: „When wind or sun are available, the need for electricity and heat is not always there. Conversely, the sun does not always shine or the wind does not blow when the need is actually there. Hence, an energy storage system and an efficient usage of this storage is of utmost importance to bridge the time lag between production of energy and use of energy – and this is where hydrogen CHP come into play" says group CEO Christian Grotholt. .

[Link to press release of customer](#)

<http://www.emec.org.uk/green-hydrogen-to-decarbonise-kirkwall-airport/>

Images



About 2G Energy UK:

The 2G product range includes CHP systems with an electrical output between 20 kW and 2,000 kW for operation with natural gas, biogas, other lean gases, biomethane and hydrogen. In the output range between 50 kW and 550 kW, 2G has its own combustion engine concepts with low fuel consumption, high availability and optimised maintenance requirements.

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