Auriga Energy marine fuel cell system granted an 'Approval in Principle' for installation in offshore workboats.

Offshore windfarms are all about green energy and yet paradoxically have a large operational carbon footprint due to the activities of their Crew Transfer Vessels (CTV). Auriga Energy has successfully completed the design of a modular marine fuel cell system, safely and reliably delivering up to 3MW power to a CTV through a unique high efficiency powertrain. The safe design, integration and operation definition was reviewed by Lloyd's Register throughout the project and has been granted 'Approval in Principle'.

This design builds on our heritage of having created the UK's first hydrogen fuel cell powered ferry, the Hydrogenesis, followed by the development of our next generation marine fuel cell module. The fuel cell system incorporates an innovative multi-parallel design for the marinised fuel cell systems, encompassing highly redundant end-to-end whole-ship energy efficiency for safe integration and operation. Enabled by novel motor, drives, and power electronics, the modular marinised fuel cell system will power a CTV through its mission profile.

Fleets of CTV are expected to service offshore installations where the system could deliver zero emission power saving up to a billion kg CO2eq per year in 2030 in operational support of North Sea windfarms alone.

The project was supported by Innovate UK under the Clean Maritime Demonstration Competition Round 2 with Auriga Energy as the lead partner in a consortium.

Jas Singh, Managing Director of the lead partner, Auriga Energy, said: "Producing safe and reliable systems has been proven in Auriga Energy's products. The project is the first step in the process of making off-shore workboat fleet zero-carbon and helping deliver the IMO's strategy for 50% 'total' GHG emission reductions by 2050. We are excited by the prospect of delivering our fuel cell systems to the emerging market for zero-emission power generation in the marine and other domains".

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