Floating 5G network to keep offshore wind farms connected

High-speed wireless connections are required to transmit data from wind farms to the shore – including on wind speeds and from vessels to keep operation and construction teams safe and connected. However, with wind farms located increasingly far from shore, areas with limited internet connection make this increasingly challenging. JET Connectivity performed a market study with ScottishPower renewables, which confirmed the need for high-speed internet connection at remote offshore wind farms. To resolve this, JET Connectivity are aiming to develop a 5G network at sea by deploying floating buoys to collect and transmit data at remote offshore locations.

Impact of the support

Exceeded headcount growth prediction, with employee count growing from 3 to 25 since OWGP engagement.

Grant helped enable the initial design of the company's floating 5G buoy.

A pilot 5G floating buoy has now been built, and is being tested in a trial with Offshore Renewable Energy Catapult and the Great Lincolnshire Local Enterprise Partnership.

A closer look at JET Connectivity

OWGP Grant funding allowed JET Connectivity to build a business with traction in the offshore wind sector, and supported development of their platforms, which are now being tested at the Lynn and Dowsing offshore wind farm.

BUSINESS PROFILE

- Startup founded in August 2020 with 25 employees and offices in Cornwall and Farnborough.
- Developed 5G Radio hardware, software and maritime platforms to form a first-of kind floating network to allow 5G communications connectivity for the installation phase of offshore wind farms.
- Offshore wind is a key target market, alongside safety, security and sustainability.

SUPPORT RECEIVED

GRANT FUNDING

Solutions for the offshore wind industry

First-of-kind 5G floating platform to provide connectivity prior to the installation of offshore fibre, with secondary use cases for weather measurements.

Vision for faster communication networks to support environmental assessments, surveying and installation of offshore wind farms in deeper waters – providing real-time data and visibility.

5G buoy currently undergoing a pilot at the Lynn and Inner Dowsing offshore wind farm – seeking further wind farms to partner with.

How did OWGP's support propel JET's business into the Offshore Wind sector?

Before

Before applying for support from OWGP, JET Connectivity had only recently founded with just three full time employees. The company had a vision for connected offshore infrastructure, and had engaged key offshore wind farm developers to understand the needs of the market. However, the company had limited funds available to make its vision a reality, so began seeking out industry support programmes. JET Connectivity applied for a grant with OWGP to help design and develop its 5G floating buoy.

During

The initial grant funding provided in 2020 supported JET Connectivity to design a floating buoy that could connect to 5G and host its communications network. In 2023, OWGP provided an additional grant to JET Connectivity to develop a tool for weather measurement to support site selection and offshore wind operations. Throughout both projects, OWGP helped the Company to gain visibility in the offshore wind industry, which has been key to making new industry contacts and growing the company almost ten-fold in size.

After

JET Connectivity's 5G floating buoy is now being tested in a trial with Offshore Renewable Energy Catapult and the Great Lincolnshire Local Enterprise Partnership at the Lynn and Dowsing offshore wind farm. This pilot project will allow both developers and supply chain companies to connect to JET Connectivity's network, trialling new digital solutions at a real offshore wind farm. OWGP's development grant was one of the key enablers in moving JET Connectivity from the ideation stage to a pilot phase. The company is now ready to actively seek partnerships with wind farm developers and software companies.

"OWGP has supported us not just through funding, but their knowledge and connections provided us with access to market and credibility within the industry. This extensive support has been a key enabler in moving our product from a vision into the pilot phase. We are now in conversations with both offshore wind developers and software companies, exploring potential partnerships for next generation offshore wind farms."

JAMES THOMAS
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