

Vilicom's private mobile network platform becomes the go-to solution for large offshore windfarm projects

Cloud-native platform from wireless telco provider, Vilicom, assures 4G mobile connectivity, high speed broadband and mission critical communications in remote locations 24x7

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Vilicom's high performing, secure private mobile network platform, GIGAWAVE, is fast becoming the go-to solution for assuring reliable cellular coverage, high-speed internet access and safety-critical communications for the UK's growing offshore windfarm industry.

The building and running of giant wind turbines are becoming increasingly digitized and superfast connectivity is required, not only for performance efficiency and reliability but also for equipment and staff safety. Legacy radio networks are struggling to support IoT and satellite broadband systems are too costly to be deployed at scale and are unable to match the performance and reliability of current cellular networks. To assure the levels of connectivity needed, Vilicom has leveraged its RF expertise and in the field experience to deploy its cloud-enabled private mobile network, GIGAWAVE in harsh offshore environments. The platform offers unrivalled 4G/5G coverage and high-speed internet access to large windfarms located too far from the coast to be catered for by on shore mobile services.

This next-generation platform can be configured to support a vast range of conventional cellular and critical communications requirements and has recently been deployed on the moray East Wind farm, 20 miles off the coast of Scotland to deliver a fit for purpose 4G private mobile network. The installation has been customised to meet the niche requirements of the turbine supplier Vestas offshore operations and is private to them. The network only supports the devices they wish to activate and combines the reliability of always-on IT systems with cutting edge technological advances in the field of Open Radio Access Networks (O-RAN) and Core Network Function Virtualization. The superfast mobile network was installed in phases while the windfarm was being constructed and is now fully operational across its 295km² area.

Vilicom's offshore private mobile network platform is cloud-based so minimal onsite infrastructure is required. Moreover, the platform is easily scalable in line with user requirements and its flexible architecture assures the stability of existing networks and services whilst also supporting wireless technologies at the forefront of innovation.

"Wind energy is a rapidly growing industry and around the clock connectivity is integral to the reliable and efficient construction and safe running of giant turbine towers," says Gearóid Collins, Commercial Director Vilicom. "Cellular broadband is the most reliable network available to constantly provide connectivity to moving fleets of ships and vessels which serve as offshore offices, construction compounds and Hotels to the workers building and managing these windfarms. GIGAWAVE, which has been designed specifically for offshore installations, delivers unrivalled performance, reliability and security, keeping both people and machines connected at all times."



UNLEASHING **MOBILE CONNECTIVITY**

Vilicom has also deployed a 3G and 4G private mobile network on **Hornsea Two**, the world's largest offshore wind farm project to date, located over 50 miles off the North Yorkshire coast and spanning an area of approximately 460 square kilometres. On track to be completed in 2022, the Hornsea Two windfarm will provide energy to around 1.3million homes in the UK.

Vilicom expects to announce further offshore projects over the forthcoming months.

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About Vilicom:

Vilicom is at the forefront of designing, installing and managing the global networks that give people in over 20 countries and four continents the freedom to communicate and work from anywhere. Vilicom's consultancy and system integration services harness wireless technology, data and intelligent analytics across every industry sector to deliver unprecedented productivity and efficiencies. Vilicom works with some of the biggest (and, indeed, the smallest) technology-driven companies in the world, offering insight-led consultancy and advice on everything from vendor selections and technology strategy to mergers, acquisitions and project delivery.