



## Press release: for immediate release

## Wind farm operator SSE Generation opts for wind Lidar, permanently

15 November 2017 – Leading UK utility company swaps Permanent Met Masts for Permanent Met ZephIRs at 108MW onshore Bhlaraidh Wind Farm in Scotland to deliver SCADA-integrated accurate wind farm measurements remotely, from the ground.

With almost 1GW of onshore wind plant, SSE continues to focus on the development, construction and commissioning of onshore and offshore wind farm capacity in the UK and Ireland.



The low profile ZephIR 300 wind Lidar deployed with SSE at Bhlaraidh Wind Farm for operational site wind measurements

In a competitive tender, SSE has innovated in the area of operational wind farm anemometry at its 32 turbine Bhlaraidh Wind Farm located on the Glenmoriston Estate north-west of Invermoriston in the Great Glen, Scotland by displacing traditional tall meteorological masts with a compact, ground-based ZephIR 300 wind Lidar provided by ZephIR Lidar.

Delivering wind measurements remotely from ground level to 200 metres ZephIR 300 delivers a capability previously not possible on onshore wind farms such as Bhlaraidh. The measurements have been successfully integrated with the on-site Vestas SCADA system conforming to grid obligations and providing in-house Resource Assessment teams with best-in-class technology to monitor and optimise the operation of the wind farm. Recent changes to industry IEC standards allowing for power curve measurements taken from ZephIR Lidars further adds value to the system's presence on the wind farm. And, with the Lidar based on the ground, all working at height requirements to perform the statutory inspections of the met mast are removed improving the overall safety standards of the site.

Leading the project within SSE, Engineering Manager - Project Delivery, Alan Evans commented: "We have successfully completed part of an ongoing project to innovate around the Cost of Energy of our wind farms which has resulted in ZephIR Lidar being selected to support SSE in the replacement of our Permanent Met Masts with Permanent Met ZephIRs. These Lidar systems provide a wider more appropriate set of wind measurements to enable more active operation and optimisation of our wind farms, all without most of the infrastructure and investment required for tall met masts. The ZephIR 300 is SCADA-integrated with our turbine supplier, Vestas, making the device very much plug and play. We'll be using the Lidars to optimise our management of the site including the delivery of turbine power curve measurements."





Alex Woodward at ZephIR Lidar responded: "In a changing world of wind farm economics, site owners and operators are seeing the value that can be delivered by operational anemometry and with Lidar that can be achieved at a lower through life cost than traditional met masts, with the same level of grid compliance and SCADA-integration. With noise assessments at 10 metres to power curve measurements at turbine hub height and across the full rotor, ZephIR 300 is the industry standard for this application – the Permanent Met ZephIR now features widely across UK wind farms and we are very proud to be working closely with SSE on their deployments."

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## About ZephIR Lidar

ZephIR Lidar provides industry-leading wind lidar products, ZephIR 300 and ZephIR DM for wind energy and meteorological applications. These lidars deliver accurate wind measurements in both onshore and offshore applications at measurement heights across the full range swept by the blades of modern wind turbines. With more than 10 million hours of operation in the field and over 1000 deployments (and counting), ZephIR Lidar has pioneered the use of lidar in the wind industry. The company is proud of the many world firsts it has achieved with customers including: upwind measurements from a turbine nacelle, turbine wake studies, offshore deployments of both fixed and floating wind lidar, an industry-accepted validation process, re-financing and re-powering of a wind farm, successful demonstration of measurement accuracy in a wind tunnel and total wind project financing from a lidar without need for a met mast.

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