

Press release: for release at WindEurope Amsterdam 28th November 2017

Wind farm offshore substations get Lidar upgrade

28 November 2017 – Leading Lidar provider, ZephIR Lidar, has released details of a new meteorological standard for offshore substations within operational offshore wind farms. Substations can now be delivered with a ZephIR 300M wind lidar as part of a Meteorological Monitoring Module to provide remote wind measurements from the system’s installed location up to 200 metres above without the need of a traditional meteorological mast.

ZephIR Lidar has further confirmed the appointment of ENGIE Fabricom, part of the global group ENGIE, as a Trusted Service Provider to provide the engineering and construction of the Lidar in to the Met Monitoring Module.

The offshore wind industry has for many years benefited from the contribution of Lidar through its many advantages when compared to hub-height met masts. Deployment of masts in offshore locations presents significant challenges including economics, planning, foundations, maintenance and ecological requirements. An illustration of the growing role of Lidar is the fleet of ZephIR Lidars mounted on fixed and floating platforms for bankable wind resource assessment campaigns during the feasibility studies for wind farms.

This, the most recent application of Lidar offshore, now moves in to the operational phase of wind farms ensuring safe and efficient operation of the site for the OEM and owner / operator by utilising already available infrastructure – an offshore substation. ZephIR 300M deployed on offshore substations is used for studying wind profiles as information for both helicopter approach and measuring wind at turbine nacelle level. Data is monitored, quality-checked and integrated to the turbine and site’s SCADA system. In this way, continual power curve assessment can also benchmark performance and provide advance warning of problems, assisting with the planning and execution of maintenance strategies.



ZephIR 300M installed with ENGIE Fabricom during offshore substation fabrication.

ENGIE Fabricom and ZephIR Lidar can confirm two contracts are already in place on large offshore wind farms with further details to be released in 2018.

Alain Goddyn, Section Manager, Section Marine Technics at ENGIE Fabricom commented: “Combining expertise in offshore engineering and design with an industry-leading wind measurement system delivers something unique. ENGIE Fabricom and ZephIR Lidar are already seeing significant demand for our Met Monitoring Module with ZephIR 300M wind Lidar. Our first two contracts are already well underway. This really is such a cost effective way of adding value to offshore substations and once again demonstrates the offshore wind industry breaking down barriers and embracing new concepts with clear safety and efficiency advantages.”



Matthew Smith, Head of Business Development at ZephIR Lidar responded: “By utilising an existing offshore asset, the offshore substation, we are simply adding value at a very low cost that would otherwise be tens of £m to achieve. ZephIR 300M is accepted by Bank’s Engineer DNV GL for providing accurate wind measurements in this application, and the system is certified to be installed offshore. This coupled with the longest available service and warranty period of any Lidar, and ENGIE Fabricom’s leading offshore engineering and design expertise really is a winning combination. It makes you think, why doesn’t every offshore substation have a ZephIR 300M?”

ZephIR Lidar technology was first deployed on an offshore platform at the Beatrice Offshore wind project in 2005 – a ground-breaking project within the industry as a world-first installation of Lidar on a fixed platform offshore. The £2.6bn Beatrice Offshore Windfarm Ltd (BOWL) project has since reached Financial Close on 23 May 2016. The project will be one of the largest private investments ever made in Scottish infrastructure and is expected to power approximately 450,000 homes (around three times the number of homes in the Moray and Highland regions).

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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.

About ENGIE Fabricom

ENGIE

- The Group employs 154,950 throughout the world (of which 94,700 is in energy services)
- Operations in 70 countries
- €69.9 billion in revenues since 2015
- 1000 researchers and experts at 11 R&D centres
- ENGIE businesses are structured around 4 business areas: Energy Services, Power, Natural Gas and LNG
- The Group provides individuals, cities and businesses with highly efficient and innovative solutions largely based on its expertise in 4 key sectors: renewable energy, energy efficiency, liquefied natural gas and digital technology

ENGIE Fabricom

- Structured to meet the challenges of tomorrow, ENGIE Fabricom is a leading player in the markets of infrastructure, services, industry, energy and Oil & Gas. Its strong presence in Belgium and Luxembourg, as well as its branches and sister-companies in Europe, enable it to participate in any major project, whether local or pan-European.
- ENGIE Fabricom boasts over 60 years of experience and specialized installations know-how in Electrical & Instrumentation, Piping & Mechanical and Automation & Process Control



- Staff of over 5000 employees offers expert solutions in a variety of technical fields covering five major markets: Infrastructure, Tertiary, Industry, Energy, and Oil & Gas.
- We are proud of our values – Professionalism ■ Integrity ■ Trust ■ Team Spirit

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