



PRESS RELEASE

Ørsted offshore wind farm is the first to supply balancing capacity to German grid

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Ørsted's Borkum Riffgrund 1 wind farm is the first German offshore wind farm whose produced electricity is fed into the German electricity grid of transmission system operator TenneT in a system-stabilising manner. Following the successful completion of a pre-qualification process, Borkum Riffgrund 1 demonstrates that balancing services can be offered and fed into the electricity grid.

Leipzig/Hamburg/Bayreuth. Since May 2022, Ørsted's offshore wind farm Borkum Riffgrund 1 has been providing system-stabilising balancing capacity for the German electricity grid. The companies Energy2market and Ørsted have worked together successfully to make the electricity from Borkum Riffgrund 1 usable as balancing capacity for the German electricity grid. The prequalification specified by the transmission system operator TenneT was granted and the offshore wind farm has shown that short-term grid fluctuations can be balanced with renewable electricity from offshore wind energy.

Jörg Kubitzka, Managing Director of Ørsted in Germany, says: "Today Offshore wind shows, that it is in no way inferior to electricity from conventional power plants. Offshore windfarms produce far more electricity than any other renewable energy source. The technology is also competitive in terms of costs. And now offshore wind is also conquering the area that was previously reserved for conventional energy sources: the stabilisation of the electricity grid. This is why offshore wind is the backbone of the energy transition in Germany, because it contributes to security of supply on many levels."

In addition to TenneT, the Energy2market prequalification concept on which the project is based also convinced the other three German transmission system operators and was approved for all four control areas. Offshore wind power is entering additional new territory with Borkum Riffgrund 1 as the first German wind farm ever to also be approved for the provision of particularly demanding aFRR.

"I am always particularly pleased when we succeed in opening up new attractive business areas for our customers and partners and at the same time make a sustainable contribution to the success of the energy transition. This is clearly the case with Borkum Riffgrund 1," says Raphael Hirtz, Managing Director of Energy2market. "The integration via our virtual power plant in the German balancing energy market now enables Ørsted to market the potential of the offshore wind farm in a way that serves the system. In addition, it is also a milestone in the energy transition. Borkum Riffgrund 1 demonstrates the ability of renewables to compensate for a large part of the reduced flexible output in the overall system due to the phase-out of coal and nuclear power generation."

TenneT COO Tim Meyerjürgens says: "TenneT has worked intensively with the other transmission system operators to revise the prequalification conditions with the aim of attracting wind farms to provide balancing capacity. This is now possible and thus represents an important step for the integration of wind energy plants into the balancing power market. I thank Ørsted and Energy2market for pioneering this together with us and I am confident that the prequalification of the first offshore wind farm will also motivate other market participants to take this step so that more and more balancing capacity from wind farms can be successfully traded on the German balancing power market in the future."

Balancing services compensate for fluctuations in the electricity grid

As a result of the energy transition in Germany and the phase-out of nuclear and coal-fired power, more and more conventional power plants are being phased out, some of which used to provide balancing services. In order to avoid a supply gap in the provision of balancing services, the German



transmission system operators have made intensive efforts to also prequalify renewable energies such as wind power and photovoltaics.

The term balancing service can also be called balancing power or balancing energy. As a reserve, this balances out the fluctuations in the electricity grid, i.e. the electricity grid frequency. The fluctuations in the electricity grid can occur, for example, due to a sudden drop in electricity demand or a change in the weather and thus higher production from wind and solar. The use of balancing services can compensate for these fluctuations and thus ensure that there is still a balance between generation and consumption. Electricity can be fed into the grid as well as taken from the grid.

Why has the prequalification of wind power plants been rare so far?

For balancing services, in addition to speed in provision, the stability of the power provided is also crucial. With the offshore wind farm (OWF) Borkum Riffgrund 1, a solution was found for this. The OWF adjusts the so-called operating point continuously. The control power provided is determined on the basis of this. For the power frequency controller in TenneT's control room, the OWF therefore looks like a normal conventional power plant. In addition, Energy2market plans exactly how much power is to be marketed for the next day. If the weather forecasts are inaccurate, slightly less power is offered, but it can then be provided safely.

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About Ørsted

Ørsted believes in a world that relies entirely on green energy. The company designs, builds and operates offshore and onshore wind farms, solar farms, energy storage facilities and green hydrogen and biomass power plants. In addition, Ørsted offers intelligent energy solutions for companies. In Germany, Ørsted operates a total of four offshore wind farms in the German North Sea and supplies the equivalent of around 1.4 million households with green electricity. Two more projects are under development. Ørsted is also working on projects in Germany to produce green hydrogen on an industrial scale. Ørsted is the only energy company in the world with a net-zero emissions target scientifically validated by the Science Based Targets Initiative (SBTi). In 2022, Ørsted was named the world's most sustainable energy company by Corporate Knights and is a climate change leader recognised by the Carbon Disclosure Project. Headquartered in Denmark, Ørsted employs around 6,800 people worldwide, including approximately 250 at its German sites. Ørsted shares are listed on Nasdaq Copenhagen (Orsted). In 2021, the company generated a turnover of 10.4 billion euros. Borkum Riffgrund 1 Offshore Windpark A/S GmbH & Co. oHG is a Joint Venture of Ørsted A/S (50%) and its Partners KIRKBI A/S (31,5%) and William Demant Invest A/S (18,5%). The latter two have agreed to transfer their share (50% in total) to Greencoat Renewables, subject to regulatory clearance.



About e2m

Energy2market (e2m), founded in 2009 at its current headquarters in Leipzig, is one of the largest aggregators and energy traders for renewable energies in Germany. Via its own virtual power plant, the energy service provider bundles, monitors and controls more than 5,500 decentralised generation plants of renewable producers, electricity storage facilities and consumers and networks them with the electricity trading markets. With 2,922 MW of marketed generation capacity from RE plants, e2m is one of the largest direct marketers for energy and the largest pool provider for balancing energy. The business magazine Brand eins named e2m one of the most innovative companies in the energy sector in 2019; FOCUS Business voted the company one of the "TOP 50 Employers of Medium-Sized Companies" in 2018. With the infrastructure necessary for the marketing of energy flexibility, market access to all relevant trading markets as well as many years of know-how of its approximately 100 employees, e2m is helping to shape the energy market of the future. Since September 2019, e2m has been part of the renewable energy division Local Energy Management (LEM) of the energy group EDF. For more information: www.e2m.energy

TenneT

TenneT is a leading European grid operator. We are committed to providing a secure and reliable supply of electricity 24 hours a day, 365 days a year, while helping to drive the energy transition in our pursuit of a brighter energy future – more sustainable, reliable and affordable than ever before. In our role as the first cross-border Transmission System Operator (TSO) we design, build, maintain and operate 24,500 km of high-voltage electricity grid in the Netherlands and large parts of Germany, and facilitate the European energy market through our 16 interconnectors to neighbouring countries. We are one of the largest investors in national and international onshore and offshore electricity grids, with a turnover of EUR 6.4 billion and a total asset value of EUR 32 billion. Every day our 6,600 employees take ownership, show courage and make and maintain connections to ensure that the supply and demand of electricity is balanced for over 42 million people. Lighting the way ahead together.