

# PRESS RELEASE

2016-09-08

## Sandbank Offshore Wind Farm supplies first power

**The offshore wind power plant Sandbank, located 90 kilometers west of the island of Sylt, has now supplied the German electricity network with its first wind power from the North Sea. The first of a total of 72 wind turbines are successively in the commissioning phase for the production of electricity. Sandbank is expected to be fully connected to the grid, and to be delivering at full capacity by early spring-time 2017.**

“We are very pleased The erection of wind turbines for Sandbank has started in late July and during the last weeks 21 wind turbines were successfully erected. Fully commissioned and in continuous operation the park will generate an annual amount of electricity which corresponds to the consumption of 400,000 German households. Compared to electricity produced from conventional sources, Sandbank avoids more than 700,000 tons of CO<sub>2</sub> emissions annually.

During the commissioning phase of the wind turbines the service operations vessel "Acergy Viking" is deployed by the project. By using this modified type of ship, the project expects a significant three months gain of time compared to the original planning. This “walk-to-work” vessel features a special gangway system which enables the commissioning teams to climb onto the wind turbines directly. The new concept also enables for work with enhanced safety standards and to be carried out 24 hours per day. This concept is used in the North Sea around Germany for the first time with the commissioning of the Sandbank wind turbines.

that the erection of the wind turbines for Sandbank is running so smoothly and that we have already 21 turbines up”, says **Hergen Stolle**, responsible package manager for wind turbines at Vattenfall. The commissioning of the first wind turbines underlines the fact that it is possible to start with the generation of electricity shortly after the erection phase. It proves that offshore technology is becoming more and mature. And it also shows that the co-operation between all project partners works very well.”

**Christian Moldan**, Head of Offshore Wind Projects at SWM, reassures: “The according-to-plan-running erection phase of our project Sandbank is a good proof point for the fact, that the offshore business makes now profitable use of the experiences already made in previous projects. This includes Vattenfall and Stadtwerke München. We were able to transfer the know-how from the “sister project” DaTysk to Sandbank and thus to carry on with our successful co-operation.”

When the wind farm is in full operation, an offshore substation will collect the wind energy of all 72 turbines, transform it from an AC voltage of 33 kilovolts (kV) to 155 kV, and deliver it to a converter station, from where the energy will be transported as DC over a distance of 165 kilometres to the landing point in Büsum, Schleswig-Holstein.

### The Sandbank project

The investment costs for the Sandbank offshore wind farm are around EUR 1.2 billion. Vattenfall holds a 51% stake in Sandbank Offshore GmbH, which was set up to implement the project, while SWM holds a 49% stake. A total of 72 Siemens wind-based power plants in the 4-megawatt (MW) class will be erected, providing a total installed capacity of 288 MW. Sandbank is scheduled to go into full

operation in 2017. This will provide a combined portfolio of 576 MW of installed generation capacity, making Vattenfall and SWM two of the largest operators of offshore wind farms in Germany.

**Notes to the editors.**

Pictures from Sandbank offshore wind farm can be downloaded free of charge under the following link: <https://www.flickr.com/photos/vattenfall/albums/72157660295495504>

**For further information, please contact**

**Vattenfall**

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**About Vattenfall**

Vattenfall is a leading European energy company and operates over 1,000 wind turbines with a total installed capacity of 2,000 megawatts (MW). In 2015, Vattenfall produced more than six billion kWh (6 TWh) of wind energy. In terms of pure figures, this amount of electricity is enough to cover the annual energy needs of around 1.5 million average German households. By 2020, Vattenfall will double its wind capacity on land and sea to 4,000 MW. The company is investing more than EUR 5 billion euros to ensure this.

**Stadtwerke München**

Stadtwerke München (SWM) is one of Germany’s biggest energy providers and infrastructure companies. By 2025, SWM aims to generate enough green power in its own plants to supply all of Munich. Munich will then become the first city with a population of over a million to achieve this target. Wind energy will make an important contribution to this. When all projects that have already been initiated have been implemented and are fully operational, SWM will have a green power generation capacity of over 3.5 billion kWh in their own plants, which represents around half of Munich’s electricity consumption.

**Sandbank facts and figures**

<b>Name</b>	<b>Sandbank offshore wind farm</b>
<b>Joint venture partners</b>	<b>Vattenfall Windkraft GmbH (51%) Stadtwerke München GmbH (49%)</b>
<b>Number of wind turbines</b>	<b>72</b>
<b>Type of turbine</b>	<b>SWT-4.0-130</b>
<b>Nominal capacity of each turbine</b>	<b>4.0 MW</b>
<b>Total installed capacity</b>	<b>288 MW</b>
<b>Predicted annual electricity generation = consumption by number of German households</b>	<b>1.4 terawatt hours (TWh) ~ 400,000 (at an annual consumption rate of 3700 kWh)</b>
<b>Water depth</b>	<b>24–33 m</b>
<b>Foundation type</b>	<b>Monopiles</b>
<b>Size of the wind farm</b>	<b>60 km<sup>2</sup></b>
<b>Distance from the coast</b>	<b>110 km (90 km from Sylt)</b>
<b>Height of rotor blade tip above sea level</b>	<b>158 m</b>
<b>Hub height</b>	<b>95 m</b>
<b>Rotor diameter</b>	<b>130 m</b>
<b>Submarine cable</b>	<b>Sylwin1</b>
<b>Cable length to coast</b>	<b>165 km from the converter station</b>
<b>Landing point of the cable</b>	<b>Büsum</b>
<b>Distance between the cable landing point and the transformer station</b>	<b>45 km</b>
<b>Start of construction:</b>	<b>June 2015</b>

