

Fact Sheet

Wind Power – United Kingdom

Status: March 2014

The UK wind market

- Wind power capacity in the United Kingdom (UK) has doubled within two years, to roughly 10.5 gigawatts (GW) in 2013. Hence, the country has the third largest cumulative installed wind energy capacity in Europe (No. 1 Germany: 34 GW; No. 2 Spain: 23 GW).
- Wind produced about 6 percent of the electricity in the UK in 2013, the average for the first months in 2014 has already been about 10 percent.
- In terms of annual installations, the UK was the second largest EU market in 2013, installing 1.9 GW of new wind power capacity, 733 megawatts (MW) of which (39 percent) offshore. (No. 1 Germany: 3.2 GW of new capacity, thereof 240 MW offshore, which is 7 percent)
- The UK has ambitious renewables targets to meet (25 percent electricity from renewables by 2020) with offshore wind playing a lead role (15 percent of the energy generation mix: 8-14 GW).
- The British energy policy creates a favourable framework for the expansion of offshore wind energy. In particular, it recognizes the potential of offshore wind energy within the overall portfolio of energy production.



The UK offshore wind market

- The UK remains the largest offshore wind market globally, with an installed operational wind capacity of 3.7 GW (56 percent of installed capacity in EU).
- In terms of the number of wind turbines installed in Europe, the UK is leading with 1,082 (52 percent).
- UK offshore wind farms provide around 8 terawatt-hours of electricity annually, enough to supply six percent (around 1.55 million) of all the homes in the UK.
- Europe-wide, 47 percent of all new capacity was installed in the UK (733 MW).
- Since December 2000 when the first wind turbines were commissioned off the UK coast at Blyth, 1,065 offshore wind turbines have been erected. All blades installed on offshore turbines in the UK laid end to end would stretch out to 195 kilometres.
- The offshore wind market in Great Britain has great potential for the future: By 2020, a capacity of 14 GW is to be installed at sea alone. Projects for just over 40 GW are currently under development or have development licenses (Source: Crown Estates).

Siemens position in the UK wind industry

- Siemens is a leading supplier for wind turbines, grid connection and service for onshore and offshore sites in Great Britain.
- In the UK, the company has installed more than 2,200 turbines (onshore and offshore) with a total capacity of more than 5 GW. Around half of the wind power capacity installed in the UK is equipped with technology from Siemens.
- Siemens has a workforce of around 14,000 in Great Britain, 1,500 of which are employed in the British wind power business.
- Siemens is an active investor in the UK offshore market, with a 25 percent stake in Lincs (together with Centrica and Dong), a 10 percent stake in Gwynt y Môr (together with RWE and Stadtwerke Munich) and a 50 percent stake in SmartWind.



Business highlights

- Siemens is involved in 14 offshore wind farm projects in the UK, such as Westernmost Rough (contracted: 35 wind turbines, 210 MW capacity), Walney II (grid connected: 51 wind turbines, 184 MW), London Array (grid connected: 175 wind turbines, 630 MW), Gwynt y Môr (under construction: 160 turbines, 576 MW) and West of Duddon Sands (under construction: 108 wind turbines, 389 MW).
- Siemens in the UK has delivered eight AC offshore platforms over six projects (total 2475 MW).
- Track record: We are currently delivering four out of the five HVDC offshore projects in the world, these are BorWin 2 (800 MW), SylWin 1 (864 MW), HelWin 1 (576 MW) and HelWin 2 (690 MW), a total of 2930 MW.
- Siemens installed a “market-ready” 6 MW wind turbine with a 154 meter rotor at SSE’s test site in Hunterston, Scotland – mainstay for Round 3.
- Siemens won the contract for Vattenfall’s Pen y Cymoedd wind farm - 76 x 3.0 Direct Drive turbines with five year service agreement. This is the biggest direct drive contract Siemens has won in the UK and PyC will be the largest onshore wind farm in Wales when completed (early 2017).
- Siemens has delivered 152 of its 2.3 wind turbines to Clyde, which is currently one of Europe’s biggest single consented wind power plants. The project was officially opened in September 2012.
- Community Wind power – first onshore direct drive contract in the UK – includes supply of six SWT-3.0-101 direct drive wind turbines and a 15 year service contract.
- £4m has been invested in the wind power training school, part of the £9m Integrated Energy Services Training Centre in Newcastle. This centre trains the next generation of wind power service technicians (over 500 trained to date). This globally accredited wind power training school is unique in the UK, and is one of four Siemens centres globally.