Walney offshore wind farm is world's biggest (for now)

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(PhysOrg.com) -- The Walney wind farm on the Irish Sea--characterized by high tides, waves and windy weather--officially opened this week. The farm is treated in the press as a very big deal as the Walney farm is presently the biggest offshore wind farm in the world. According to DONG Energy, which is part of the venture responsible for the Walney farm, the project is approximately 15km from the coastline of Walney Island in a north west to south-easterly direction.

The farm has 102 turbines and a capacity of 367 megawatts, said to be enough power for 320,000 homes. The joint venture behind the Walney wind farm involves the Denmark-based DONG Energy, which is a leading energy group in northern Europe, and several other companies. The breakdown is DONG Energy (50.1%), SSE (25.1%) and OPW (

24.8%). According to reports, DONG Energy has around 30 per cent of the offshore wind market throughout Europe.

Ed Davey, Energy and Climate Change Secretary, has voiced enthusiastic support of the offshore wind farm. Britain, with more than 1,500 megawatts of offshore wind, intends to see a capacity boost to 18,000 megawatts by 2020. Over the near term, Davey predicted that 2012 through 2014 will be all about the "industrialization" of offshore wind.

DONG likewise attaches importance to the UK push; the company notes that the scale of the offshore wind farms envisioned by the UK is larger than in any other country in the world. Following the Walney opening, another big event scheduled is the London Array off the coast of Kent, to debut by the end of the year. Observers say it will dwarf the Walney farm, to become the world's largest offshore wind farm, powering 750,000 homes. The first phase will power two-thirds of all the homes in Kent.

Government enthusiasm over offshore wind farms is countered, however, by skeptics who remain unconvinced that offshore wind farms are a good energy solution and by those who are opposed to wind farms period. (In the UK, energy watchers underwhelmed by wind power contend that wind power does little or nothing to offset CO2, and isn't economically viable without subsidies. Moreover, British economist Ruth Lea has said that when all costs are included, gas-fired power is the most cost-efficient method of generating electricity in the short-term, while nuclear power stations become the most cost-efficient in the medium-term.)

According to findings from the Bloomberg New Energy Finance group, installing turbines offshore costs about 3.3 million pounds a megawatt, higher than the cost to build a turbine onshore, estimated at 1.25 million

pounds a megawatt.

Davey, however, is optimistic. He has maintained that even though offshore wind turbines are presently a high-cost form of energy, with adequate support the cost can come down; he said that, over the longer term, offshore wind will provide a low-cost form of energy if compared to fossil fuels. He said another benefit to offshore wind farms is that they will provide jobs and perhaps even an export market for the UK.

According to Reuters, offshore wind farms will receive UK government subsidies until 2015, which will subsequently be reduced by 5 percent. Onshore wind farms, which are less costly to build, will see subsidies cut gradually by 10 percent.

More information: www.dongenergy.com/Walney/Abou … out_the_project.aspx