



## Floating Offshore Wind Power Update

Posted by [Big Gav](#) on June 13, 2009 - 10:59am in [The Oil Drum: Australia/New Zealand](#)

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I did a post last year on the potential for [floating offshore wind power](#), which looked at a number of different prototypes at various stages of development.

StatoilHydro and Siemens have made some progress on their pilot project, installing the world's first large-scale floating offshore wind turbine off the coast of Karmøy, Norway. The 2.3 MW [Hywind](#) (see the link for a set of videos on the turbine being deployed) was built at a depth of 722 feet and will be tested over the next two years.

StatoilHydro is investing around NOK 400 million (US\$62 million) in the pilot and related research and development. Enova SF, a company whose aim is to promote the transition to environmentally friendly energy use and energy production in Norway, has contributed NOK 59 million (US\$9 million) in support for the project.



The New York Times has a brief report on this - [Wind Farming in Deep Waters](#).

Most existing offshore wind turbines are mounted firmly to the seabed. Now StatoilHydro of Norway and Siemens of Germany are installing what they say is the world's first large-scale floating turbine to exploit the potential of the technology in deep waters.

Building foundations to attach turbines to the seabed becomes expensive at water depths of more than about 50 meters (164 feet), according to the companies. That has limited large-scale exploitation of offshore wind power, particularly in countries with little or no shallow water near the coast line, they said.

Expansion near coastlines can also be difficult because of restrictions on construction in fishing grounds and bird migration zones. And an advantage of building on the high seas is that winds are stronger and more consistent than near the coast. ...

The new turbine is designed to be suitable for installation in water depths between 120 and 700 meters (394-2,297 feet), allowing them to be “placed much more freely than before,” said Henrik Stiesdal of the wind power unit at Siemens. ...

Siemens is supplying the turbine, which will start delivering electricity in mid-July. StatoilHydro is providing the floating structure with a center of gravity deep below the water surface to reduce bobbing. That structure would then be fastened to the seabed by three anchor wires. Even so, the companies have developed an “advanced control system” to take “advantage of the turbine’s ability to dampen out part of the wave-induced motions of the floating system.”



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