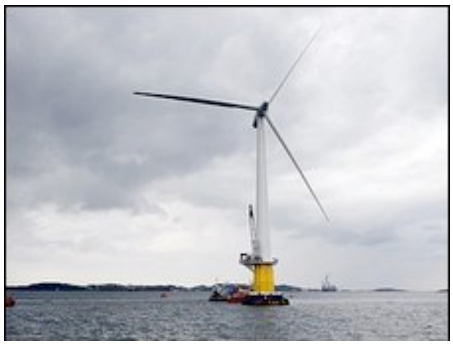
5 June 2009 18:38 UK

Floating wind turbine launched

By Jorn Madslien
Business reporter, BBC News



Floating wind turbines can help shift offshore wind farms out of sight

The world's first floating wind turbine is to be towed out to sea this weekend.

Statoil's Alexandra Beck Gjorv told the BBC the technology, the Hywind, to be put off Norway's coast - "should help move offshore wind farms out of sight".

And it could lead to offshore wind farms eventually being located many miles offshore, away from areas where they cause disruption, Ms Gjorv added.

This would benefit military radar operations, the shipping industry, fisheries, bird life and tourism.

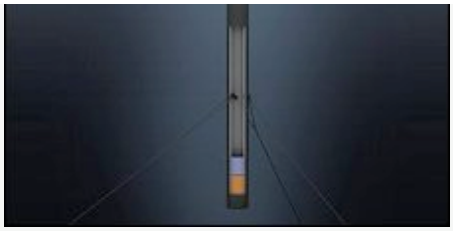
"Taking wind turbines to sea presents new opportunities," said Ms Gjorv, of Statoil's new energy division.

"The wind is stronger and more consistent [and] areas are large."

The Hywind, a 2.3 megawatt (MW) wind turbine built by Siemens, combines technologies from both the wind farming industry and the oil and gas sectors, and will be tested off the coast of Norway for two years.

In a similar way to how large parts of icebergs are hidden below the sea surface, the turbine has a 100 metre draft that is anchored to the seabed with cables, that can be up to 700 metres long.

Wealthy customers



The floatation element stretches 100 metres below the sea surface
It is anchored to the seabed in three places
It can be moored in waters up to 700 metres deep

Offshore wind farms cost considerably more than wind farms on land, and initially floating ones will be more expensive than static offshore installations.
But over time, insisted Ms Gjorv, the floating turbines should not cost more than fixed ones.
Statoil plans to target markets where there is both an ability to pay as well as large and growing demand for energy, she added.
Floating wind farms could later be established off both coasts of North America and off the Iberian peninsula and the coasts of Norway and the United Kingdom, she said.
Floating wind farms could provide an additional source of energy for countries that have run out of space for their onshore wind farms, or where there is not enough wind on land, Ms Gjorv added.
"The global market for such turbines is potentially enormous, depending on how low we can press costs," she said, though she was not able to quantify it or to outline a timescale for when floating wind farms would become commercially available.