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## Statoil Launches Batwind: Battery storage for Offshore Wind

A new battery storage solution for offshore wind energy will be piloted in the world's first floating wind farm, the Hywind pilot park off the coast of Peterhead in Aberdeenshire, Scotland.



Batwind will be developed in co-operation with Scottish universities and suppliers, under a new Memorandum of Understanding (MoU) signed in Edinburgh on 18 March between Statoil, the Scottish Government, the Offshore Renewable Energy (ORE) Catapult and Scottish Enterprise.

Battery storage has the potential to mitigate intermittency and optimise output. This can improve efficiency and lower costs for offshore wind. The pilot in Scotland will provide a technological and commercial foundation for the implementation of Batwind in full-scale offshore wind farms, opening new commercial opportunities in a growing market.

Stephen Bull, Statoil's senior vice president for offshore wind, said:

Statoil has a strong position in offshore wind. By developing innovative battery storage solutions, we can improve the value of wind energy for both Statoil and customers. With Batwind, we can optimise the energy system from wind park to grid. Battery storage represents a new application in our offshore wind portfolio, contributing to realising our ambition of profitable growth in this area.

Statoil will install a 1MWh Lithium battery based storage pilot system in late 2018. This equals the battery capacity of more than 2 million iPhones.

The pilot will be part of Hywind Scotland, an innovative offshore wind park with five floating wind turbines located 25 km offshore Peterhead. The wind park is currently under construction and start of electricity production is expected in late 2017.

A structured programme is now being established under the MoU to support and fund innovation in the battery storage area between Statoil and Scottish industry and academia. This programme will be managed by ORE Catapult and Scottish Enterprise.

Bull said: We are very pleased to develop and demonstrate this concept in Scotland, which has a huge wind resource, strong academic institutions and an experienced supply chain. The agreement between Statoil, the Scottish Government, ORE Catapult and Scottish Enterprise represents a unique opportunity for government, researchers and industry to work together to develop new energy solutions for the global market.

Scotland's Energy Minister Fergus Ewing said:

The signing of this MoU will allow the signatories to work together in the development of the Batwind battery storage solution. This will help maximise the renewable generation of the Hywind offshore wind farm, whilst informing the case for energy storage and demonstrating the technology's ability to support renewables in Scotland and internationally.

A recent industry and Government report, produced by the Carbon Trust, concluded that if the energy market was adapted to appropriately recognise the benefits of electricity storage to the wider system, this could lead to savings of up to £50 a year on an average energy bill and a system wide saving of up to £2.4bn a year by 2030.

Andrew Jamieson, Chief Executive of ORE Catapult, said:

Our partnership with Statoil represents a great opportunity to identify and support areas in which Scottish universities and the supply chain can contribute and learn from this innovative project. Innovations such as the integration of battery storage technologies are another key element in the future energy mix and will enable a greater penetration of renewable technologies in Scotland and support the development of next generation ideas such as floating wind.

We are developing a programme that will match Scottish supply chain capabilities and research excellence with the technology challenges of developing innovative battery storage solutions, ensuring Scotland and the wider UK benefits from the economic opportunities presented by this internationally important project.

Maggie McGinlay, Director of Energy and Clean Technology at Scottish Enterprise, commented:

We've worked with Statoil for a number of years to deliver the Hywind project, so it's fantastic to remain involved in this next stage of battery storage innovation. This is exactly the kind of innovation in the energy sector we're keen to encourage and support as it may have potential to advance industry growth in Scotland.

For more information, please visit [www.statoil.com](http://www.statoil.com).