

PRESS RELEASE

DRAFT

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## Straininstall provides specialised mooring monitoring for pioneering floating offshore wind farm project, Hywind.

- Straininstall system to provide detailed mooring tension insight to help demonstrate feasibility of Hywind project
- Collaboration with MacGregor delivers fully integrated mooring solution to monitor the forces on the floating turbines
- System will provide data to establish a detailed understanding of structural fatigue life

Straininstall, a world leader in the development of innovative monitoring solutions and part of James Fisher and Sons plc, has been awarded a contract to provide crucial mooring monitoring for the Hywind pilot park – the world's first floating offshore wind farm. The contract with MacGregor, a provider of innovative engineering solutions for handling marine cargoes and offshore loads, will provide an integrated offshore mooring solution for the floating turbines.

The Hywind pilot park off the coast of Peterhead, Scotland, being developed by Statoil, aims to demonstrate the feasibility of future commercial floating offshore wind farms in deepwater sites with optimal wind conditions. The site will consist of five, 6 MW floating turbines, with production of the first turbine expected in late 2017. And although a pilot project, the wind farm will be fully operational, powering around 20,000 households in Aberdeenshire.

Understanding how the structures will react within this challenging offshore environment is key to establishing Hywind's feasibility, particularly in relation to how the mooring lines will perform with the demands placed upon them. Each floating turbine will be securely moored to the seabed via MacGregor's unique chain stoppers which will incorporate Straininstall's innovative and patented strain ring monitoring sensors to provide highly accurate mooring load information.

The highly accurate and extremely robust strain ring sensors fitted to MacGregor's Pusnes chain stoppers, which make up the mooring monitoring system, can sense minute changes in tension enabling detailed understanding of the load and fatigue life of the floating structures, providing detailed insight for future design developments.

The mooring monitoring system will monitor the different stresses placed on the turbines that could affect the performance of the structures and the mooring lines. Large floating turbines induce vibrations due to the high winds

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and swell from the deepwater site in the North Sea, which is one of the toughest environments in the world. High winds will put additional stresses on the structures and mooring, so having a monitoring system to measure tension is crucial to the safe ongoing operation of the site.

“We have worked with MacGregor for many years providing our unique strain ring product for their pusher chain stopper mooring applications in the oil and gas industry and we are delighted to work with them to bring our combined technologies into the renewables sector for this world first project.” explained Simon Everett, managing director at Straininstall.

“Straininstall has considerable experience of providing mooring monitoring solutions and we see an exciting opportunity to bring this knowledge to the floating renewables market as it develops over the coming years” Everett concluded.

**ENDS**

## Notes

**Strainstall**, part of James Fisher and Sons plc, is an expert in all areas of monitoring and sensor based technology. With engineering teams who have acquired an international reputation for work in strain gauge based technology, they are dedicated to acquisition and interpretation of data. Strainstall use a diverse range of strain gauges, load cells, measuring techniques and specially developed data acquisition systems to monitor and solve problems across a wide range of industries.

For more information see [www.strainstall.com](http://www.strainstall.com)

**James Fisher and Sons plc** is a leading service provider in all sectors of the marine industry and a specialist supplier of engineering services to the nuclear industry in the UK and abroad. Operating worldwide, the company serves both the private and public sectors and adopts a practical approach to the management of assets and provision of high quality services, ensuring an appropriate use of technology and a sound understanding of each customer's requirements. Building on the experience and expertise gained over more than 165 years of operating in the marine environment, James Fisher brings practical experience, innovation and commercial best practice to all clients' projects and services.

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