**Dogger Bank Wind Farms**

**Project Update**

*Dogger Bank Offshore Wind Farms* were developed over a five year period by Forewind, with Development Consent Orders (DCOs) being granted for these Nationally Significant Infrastructure Projects in 2015.

In August 2017, new ownership arrangements for the wind farms were announced. SSE and Equinor have each taken a 50% share in three of the projects: Dogger Bank Creyke Beck A and B, and Teesside A.

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**SSE plc** is one of the UK’s leading energy companies, involved in producing, distributing and supplying electricity and gas in a reliable and sustainable way. SSE is maintaining and investing in a diverse and sustainable portfolio of generation plant, with the aim of having a portfolio weighted towards gas and renewables by the end of the decade. As of the end of March 2018, SSE had a renewable capacity across Great Britain and Ireland of approximately 3.8GW.

**Equinor** (formerly Statoil) is an international broad energy company committed to long-term value creation in a low carbon future. Equinor, has a broad portfolio of oil, gas and wind assets in the UK. It is the largest offshore oil and gas operator in Norway and is one of the world’s largest offshore operators, and a growing force in renewables. With active investment in new energy such as offshore wind, Equinor currently has 750 MW of installed offshore wind capacity in production in the UK, and 385 MW under construction in Germany, at the EON-operated Arkona project.

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*Dogger Bank Wind Farms* present a key opportunity for both joint venture partners to increase their stake in offshore wind. The partners now have a team in place, involving staff from both companies, to progress the projects towards construction.
Due to technological advances, a non-material change is being requested to the DCO for Creyke Beck. Further details are available here [link](https://infrastructure.planninginspectorate.gov.uk/projects/yorkshire-and-the-humber/dogger-bank-creyke-beck/?ipcsection=overview) and we will communicate the outcome of this process in due course.

Creyke Beck A and B
- Equal Joint Venture (JV) between SSE & Equinor
- 2.4GW wind farms
- Covers areas of 515 km² and 599 km² at sea
- 131 km from shore
- Cable landfall to the north of Ulrome
- 30 km onshore cable
- Connection to existing Creyke Beck Substation.

Teesside A
- Equal Joint Venture (JV) between SSE & Equinor
- 1.2 GW wind farm
- Covers an area of 560km² at sea
- 196km from shore
- Connection to existing Lackenby Substation.

innogy has taken full ownership of Teesside B which has since been renamed Sofia Offshore Wind Farm.

### Project key facts and figures

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### DCO amendment for Creyke Beck projects

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#### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Consented Envelope</th>
<th>Proposed Amendment</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotor diameter</td>
<td>Up to 215m</td>
<td>Up to 280m</td>
<td>See comment below on number of turbines.</td>
</tr>
<tr>
<td>Monopile diameter</td>
<td>Up to 10m</td>
<td>Up to 12m</td>
<td>With respect to seabed footprint, the worst case in assessment terms is based on a gravity base system. Potential implications for underwater noise are considered below.</td>
</tr>
<tr>
<td>Maximum hammer energy – monopile</td>
<td>3,000kJ</td>
<td>Up to 4,000kJ</td>
<td>There are no proposed changes to the maximum hammer energy in relation to pin-piles.</td>
</tr>
<tr>
<td>Capacity</td>
<td>Up to 1.2GW per project</td>
<td>No change</td>
<td>The Projects will be constrained by capacity, which is unchanged.</td>
</tr>
<tr>
<td>Number of turbines</td>
<td>Up to 200 turbines per project</td>
<td>No change</td>
<td>When considering the larger rotor diameter, the total number of wind turbines used will be constrained by the maximum capacity and rotor-swept area (both unchanged). For example, for the maximum proposed rotor diameter of 280m, the maximum number of turbines would be 70 per Project.</td>
</tr>
<tr>
<td>Total rotor-swept area</td>
<td>Up to 4.35km²</td>
<td>No change</td>
<td>The Projects will be constrained by the total rotor-swept area, which is unchanged.</td>
</tr>
<tr>
<td>Blade tip height</td>
<td>Up to 315m above highest astronomical tide (HAT)</td>
<td>No change</td>
<td>N/A</td>
</tr>
<tr>
<td>Lower tip height</td>
<td>26m or greater above HAT</td>
<td>No change</td>
<td>N/A</td>
</tr>
</tbody>
</table>
The JV has an overall objective to enhance competition and maximise UK content.

On 23 May 2018, Dogger Bank Wind Farms held a Meet the Buyer event, which was an initial opportunity for the JV partners to meet with local companies, find out what they had to offer and what they may be able to contribute to the project.

Around 300 businesses attended the event, many of whom sat down with representatives from the project to introduce their business and what they could offer to the project. The project plans to hold further events at appropriate points in the future.

Halvard Rydland
Business Manager for the JV

It is our aim to enhance competition and maximise UK content as much as possible. Therefore, it is very important to engage with the UK supply chain as early as possible in the delivery of the Dogger Bank Wind Farms, and this event was a valuable opportunity for the project team as much as it was for North East companies to highlight their capabilities and experience.

05 Onshore

We are working with landowners to undertake surveys within the onshore working areas at Creyke Beck.

These have included ecology surveys for badgers, newts, water voles and otters. Moving forward, further surveys will be undertaken for transport, access and archaeology, among others.

Creyke Beck onshore cable route
06 Offshore

Dogger Bank Wind Farms conducted an offshore geotechnical site investigation during July and August 2018. The scope included geotechnical boreholes and cone penetration tests (CPT) in Creyke Beck A and B and shallow CPTs and vibrocores along the planned export cable corridor. This will aid in the understanding of the ground conditions that will feed into foundation and cable design.

The geotechnical boreholes were conducted by Fugro on their drilling vessel Fugro Scout. The CPT and vibrocore scope were completed by GEO utilising the Atlantic Tonjer. Pre-construction surveys will also be carried out around features of ecological and archaeological importance to inform monitoring and mitigation proposals during construction.

07 Programme

This is an indicative programme of key milestones for the Creyke Beck project only, which is subject to change.

- 2010 - Work began on projects
- 2015 - Consent awarded
- Early 2018 - Work began to discharge DCO requirements
- June 2018 - DCO amendment for Creyke Beck projects submitted
- Late 2019 - Onshore construction could commence
- 2022 - Offshore construction could commence

08 Keeping you informed

Up to date information about the wind farms, including future editions of this newsletter, will be available on our website: www.doggerbank.com

Given our desire to reduce our impact for future generations, we will only be providing this newsletter in an electronic format. We will be uploading copies to the project website.