



# Marine Management Organisation Marine Licence

## 1 Introduction

This is a licence granted by the Marine Management Organisation on behalf of the Secretary of State to authorise the licence holder to carry on activities for which a licence is required under Part 4 of the Marine and Coastal Access Act 2009.

### 1.1 Licence number

The licence number for this licence is L/2012/00218/5

### 1.2 Licence holder

The licence holder is the person or organisation set out below:

Name / company name	DUDGEON OFFSHORE WIND LIMITED
Company registration number (if applicable)	04418909
Address	1 KINGDOM STREET LONDON W2 6BD
Contact within company	Mr Christopher Nunn
Position within company (if applicable). State if company officer or director	Consents Manager

### 1.3 Licence date

Version	5
Licence start date	12 November 2014
Licence end date	06 July 2052
Date of original issue	06 July 2012
Date of variation issue	12 November 2014

### 1.4 Licence validity

This version of this licence is valid from the licence start date to the licence end date.

This version of this licence supersedes any earlier version of this licence. Any activity commenced under a previous version of this licence and which is also a licensed activity authorised by section 4 of this version of this licence may continue in accordance with the licence conditions in section 5 of this version of this licence.

This document does not have a  
Digital Signature

Digital Signatures may only be applied by  
authorised personnel. Copies of master  
documents may be obtained upon request.

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## **2 General**

### **2.1 Interpretation**

In this licence, terms are as defined in section 115 of the Marine and Coastal Access Act and the Interpretation Act 1978 unless otherwise stated.

- "licensed activity" means any activity set out in section 4 of this licence.
- "licence holder" means the person(s) or organisation(s) named in section 1 above to whom this licence is granted.
- "MMO" means the Marine Management Organisation.
- "mean high water springs" means the average of high water heights occurring at the time of spring tides.
- "sea bed" or "seabed" means the ground under the sea.
- "the 2009 Act" means the Marine and Coastal Access Act 2009.
- All times shall be taken to be the time on any given day.
- All geographical co-ordinates contained within this licence are in WGS84 format (latitude and longitude degrees and minutes to three decimal places) unless stated otherwise.

### **2.2 Contacts**

Except where otherwise indicated, the main point of contact with the MMO and the address for email and postal returns and correspondence shall be:

#### **Marine Management Organisation**

**Lancaster House**

**Hampshire Court**

**Newcastle upon Tyne**

**NE4 7YH**

**Tel:0300 123 1032**

**Fax:0191 376 2681**

**Email:marine.consents@marinemanagement.org.uk**

Any references to any local MMO officer shall be the relevant officer in the area(s) located at:

#### **Marine Management Organisation**

**Pakefield Road**

**Lowestoft**

**Suffolk**

**NR33 0HT**

**Tel: 01502 573149**

**Fax: 01502 514854**

**Email: [lowestoft@marinemanagement.org.uk](mailto:lowestoft@marinemanagement.org.uk)**

## **3 Project overview**

### **3.1 Project title**

Dudgeon Offshore Wind Farm (OWF)

### **3.2 Project description**

The Dudgeon OWF site is located approximately 32km offshore of the North Norfolk coast, off the town of Cromer.

Marine Licence L/2012/00218 was issued in July 2012 for the installation of between 91 and 115 Wind Turbine Generators (WTG) with a generating capacity of 560 MW covering a maximum area of approximately 35km<sup>2</sup>.

In addition an application was made for the following;

- \* Up to four export cables;
- \* Inter-array cabling;
- \* Up to three offshore substations;
- \* Up to four meteorological masts and
- \* An accommodation platform.

The distance between the turbines will not be less than 360 meters and the distance between the rows of turbines not less than 600 meters. The turbine hub height shall not exceed 110 meters above Mean High Water Springs (MHWS).

The turbine rotor diameter shall not exceed 160 meters. The turbine height overall (to blade tip) shall not exceed 190 meters above MHWS and the distance between sea level (MHWS) and the blade tip at the lowest point shall not be less than 22 meters.

In July 2013 an application was made to vary the existing consent under Section 72 of the Marine and Coastal Access Act 2009 (as amended) to include;

- \* An increase in the site boundary to 55.1km<sup>2</sup>;
- \* A reduction in the number of Wind Turbine Generators (WTG) to a maximum of 77;
- \* The use of suction bucket foundations or larger monopile foundations up to 8.5m diameter.

The export cable route will run in an approximately south westerly direction from the wind farm to a landfall at Weybourne Hope on the North Norfolk coast as specified in Schedule 1.

### **3.3 Related marine licences**

N/A

## 4 Licensed activities

This section sets out the licensed activities. The licensed activities are authorised to be carried on only in accordance with the activity details below and with the licence conditions as set out in section 5 of this licence.

Site 1 - Dudgeon OWF Export Cable Corridor	
Site location	Dudgeon OWF.
Activity 1.1 - Construction of Dudgeon OWF Export Cable Corridor	
Activity type	Construction of new works.
Activity location	53 13.4600'N 01 22.4000'E 53 15.2300'N 01 20.3600'E 53 14.1400'N 01 20.8200'E 53 12.9900'N 01 20.3700'E 53 10.0900'N 01 18.5400'E 53 02.7500'N 01 13.7800'E 53 01.7200'N 01 13.0400'E 53 01.4900'N 01 12.2300'E 53 01.3000'N 01 07.8300'E 52 57.1000'N 01 07.5000'E 52 56.9500'N 01 08.7400'E 52 57.2300'N 01 09.6000'E 52 59.2200'N 01 11.9200'E 53 00.4300'N 01 13.4100'E 53 01.7600'N 01 15.0800'E 53 09.5800'N 01 20.1900'E 53 12.7500'N 01 22.1200'E 53 13.4200'N 01 22.1200'E 53 13.4600'N 01 22.4000'E
Description	See Section 3.2.
Methodology	The works must be carried out in accordance with the Construction Method Statement as required under condition 3.1.3 of Marine Licence L/2012/00218.

Programme of works	Construction is expected to occur between 2015 and 2017.
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<b>Site 2 - Dudgeon OWF Boundary</b>	
Site location	Dudgeon OWF.
<b>Activity 2.1 - Construction of Dudgeon OWF</b>	
Activity type	Construction of new works.
Activity location	53 18.3840'N 01 19.3028'E 53 15.6907'N 01 19.0883'E 53 12.5961'N 01 25.7567'E 53 14.6862'N 01 25.9239'E 53 14.3196'N 01 26.6727'E 53 16.0562'N 01 26.7900'E 53 18.9254'N 01 20.5616'E 53 18.3036'N 01 19.4767'E 53 18.3840'N 01 19.3028'E
Description	See Section 3.2.
Methodology	The works must be carried out in accordance with the Construction Method Statement as required under condition 3.1.3 of Marine Licence L/2012/00218.
Programme of works	Construction is expected to occur between 2015 and 2017.



## **5 Licence conditions**

### **5.1 General conditions**

#### **5.1.1 Notification of commencement**

The licence holder must notify the MMO prior to the commencement of the first instance of any licensed activity. This notice must be received by the MMO no less than five working days before the commencement of that licensed activity.

#### **5.1.2 Licence conditions binding other parties**

Where provisions under section 71(5) of the 2009 Act apply, all conditions attached to this licence apply to any person who for the time being owns, occupies or enjoys any use of the licensed activities for which this licence has been granted.

#### **5.1.3 Agents / contractors / sub-contractors**

The licence holder must notify the MMO in writing of any agents, contractors or sub-contractors that will carry on any licensed activity listed in section 4 of this licence on behalf of the licence holder. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity.

The licence holder must ensure that a copy of this licence and any subsequent revisions or amendments has been provided to, read and understood by any agents, contractors or sub-contractors that will carry on any licensed activity listed in section 4 of this licence on behalf of the licence holder.

#### **5.1.4 Vessels**

The licence holder must notify the MMO in writing of any vessel being used to carry on any licensed activity listed in section 4 of this licence on behalf of the licence holder. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity. Notification must include the master's name, vessel type, vessel IMO number and vessel owner or operating company.

The licence holder must ensure that a copy of this licence and any subsequent revisions or amendments has been read and understood by the masters of any vessel being used to carry on any licensed activity listed in section 4 of this licence, and that a copy of this licence is held on board any such vessel.

#### **5.1.5 Changes to this licence**

Should the licence holder become aware that any of the information on which the granting of this licence was based has changed or is likely to change, they must notify the MMO at the earliest opportunity. Failure to do so may render this licence invalid and may lead to enforcement action.

#### **5.1.6 Licence Quantities**

Where a licensed activity comprises dredging or the disposal of dredged material,

the total quantity of material authorised to be dredged or disposed of in any given time period shall be as set out for that licensed activity in section 4 of this licence.

For each time period, the actual quantity dredged or disposed of shall be calculated by adding the quantity of material dredged or disposed of during that time period under this version of this licence to that dredged or disposed of under any previous version of this licence that was valid during that time period.

## 5.2 Project specific conditions

This section sets out project specific conditions relating to the licensed activities as set out in section 4 of this licence.

Prior to the Commencement of the Works	
<b>5.2.1</b>	<p>The Licence Holder must submit a detailed schedule of planned construction and monitoring for the approval of the Licensing Authority at least <b>four months</b> prior to the proposed commencement of any construction works. This schedule must contain timings for:</p> <ul style="list-style-type: none"> <li>* mobilisation of plant;</li> <li>* delivery of materials;</li> <li>* all installation works;</li> <li>* preparing and submitting survey specifications and;</li> <li>* data collection, analysis, report writing and submission to the Licensing Authority.</li> </ul> <p>Construction must not commence until the Licensing Authority has given written acceptance of the construction schedule.</p> <p>Reason: To ensure the Licensing Authority is aware of expected start dates and deadlines associated with the project.</p>
<b>5.2.2</b>	<p>The Licence Holder must submit a Method Statement for the approval of the Licensing Authority at least <b>four months</b> prior to the proposed commencement of any construction works. This Method Statement must describe the construction works in detail confirming;</p> <ul style="list-style-type: none"> <li>* the final choice of foundation type;</li> <li>* turbine output and specifications;</li> </ul>

	<ul style="list-style-type: none"> <li>* installation techniques;</li> <li>* cable type and specification (including any additional shielding to mitigate potential impacts of Electro Magnetic Fields);</li> <li>* cable burial depths;</li> <li>* cable laying technique and</li> <li>* contractors and vessels.</li> </ul> <p>Construction must not commence until the Licensing Authority has given its written acceptance of the Method Statement. The Method Statement must be consistent with the details submitted in the required Construction and Monitoring Schedules referred to in conditions 5.2.1 and 5.2.13.</p> <p>Reason: To ensure the methodology follows best current practices, has been assessed within the Environmental Statement (ES) and appropriate mitigation is in place to reduce environmental and navigational impacts.</p>
5.2.3	<p>The Licence Holder must submit a Marine Pollution Contingency Plan (MPCP) for the approval of the Licensing Authority at least <b>four months</b> prior to the proposed commencement of any construction works. The MPCP must outline procedures to be implemented in the event of spills and collision incidents (including oil, chemical and grout spills) during construction and operation. This must be adhered to and be included in the Project Environmental Management Plan (PEMP) as referred to in condition 5.2.5. The MPCP must take into account existing plans for all operations, including offshore installations that may have an influence on the MPCP. Practices used to refuel vessels at sea must be detailed in the MPCP and must conform to industry standards. Construction must not commence until the Licensing Authority has given its written acceptance of the MPCP.</p> <p>Reason: To minimise the risk of pollution incidents occurring by adopting best practice techniques.</p>
5.2.4	<p>The Licence Holder must submit a Chemical Risk Assessment (CRA) report for the approval of the Licensing Authority at least <b>four months</b> prior to the proposed commencement of any construction works. This risk assessment must include:</p>

	<ul style="list-style-type: none"> <li>* how and when the chemicals are used, stored and transported;</li> <li>* best practice guidelines for the equipment/techniques used and</li> <li>* an assessment of the integrity of the equipment and the risk of spills.</li> </ul> <p>The CRA report must be submitted along with the MPCP required in condition 5.2.3. Construction must not commence until the Licensing Authority has given written acceptance of the CRA.</p> <p>Reason: To minimise the risk of pollution incidents occurring by adopting best practice techniques.</p>
<b>5.2.5</b>	<p>The Licence Holder must submit a copy of a Project Environmental Management Plan (PEMP) for the approval of the Licensing Authority, who will consult with the Centre for Fisheries and Aquaculture Science (Cefas), Natural England (NE) and English Heritage (EH) at least <b>four months</b> prior to the proposed commencement of construction. The PEMP must document the environmental management requirements for all parties involved with the project and affected by it. Construction must not commence until such time as the PEMP has been agreed in writing by the Licensing Authority.</p> <p>Reason: To minimise the environmental impacts of the works by ensuring best practices are adopted and suitable mitigation measures are agreed.</p>
<b>5.2.6</b>	<p>The Licence Holder must submit a copy of a Scour Protection Management Plan for the approval of the Licensing Authority in consultation with Cefas and NE at least <b>four months</b> prior to the installation of any scour protection. The plan must detail the need, type, sources, quantity and installation methods for scour protection around the turbine foundations. Installation must not commence until such time as the Scour Protection Management Plan has been agreed in writing by the Licensing Authority.</p> <p>Reason: To minimise the environmental impacts of the works and to ensure that the impacts of the proposed works are within those assessed within the ES.</p>
<b>5.2.7</b>	<p>The Licence Holder must submit a detailed export and inter-array cable installation plan, including cable landfall works</p>

	<p>for the approval of the Licensing Authority in consultation with Cefas, NE, EH, Maritime and Coastguard Agency (MCA), Trinity Lighthouse (TLH), Royal Yachting Association (RYA) and the Local Port Authorities at least <b>four months</b> prior to the commencement of cable installation work. The plan must: use detailed geotechnical data to ascertain optimal cable burial depth along the length of the export cable (including works in the intertidal zone);</p> <ul style="list-style-type: none"> <li>* detail the methods used for laying the cable, minimising where possible the use of jetting in the intertidal area;</li> <li>* detail cable burial depths;</li> <li>* include a burial risk assessment,</li> <li>* include the need, type, sources quantity and installation methods for any scour protection.</li> </ul> <p>Cable installation must not take place until such time as the Licensing Authority, has approved the cable installation plan.</p> <p>Reason: To ensure the proposed works follow best practice, has been assessed during the application process and appropriate mitigation is in place to reduce environmental and navigational risk.</p>
5.2.8	<p>If cable protection is required then the Licence Holder must submit a cable protection plan for the approval of the Licensing Authority in consultation with Cefas, NE, MCA, TLH, RYA and Local Port Authorities at least <b>four months</b> prior to the commencement of the works. This plan must be presented in conjunction with work undertaken to identify scour protection/ armouring works required to protect the cable. The installation of any cable protection must not commence until the cable protection plan has been agreed in writing by the Licensing Authority.</p> <p>Reason: To ensure the proposed works follow best practice, has been assessed during the application process and appropriate mitigation is in place to reduce environmental and navigational risk.</p>
5.2.9	<p>The Licence Holder must submit the technical specifications of the cables including a desk-based assessment of the attenuation of electro-magnetic field (EMF) strengths, shielding and cable burial depth to the Licensing Authority with the cable laying plan as referred to in condition 5.2.7 at least <b>four months</b> prior to construction.</p>

	<p>Reason: To assess the potential impacts of EMF on electrosensitive receptors.</p>
<b>5.2.10</b>	<p>The Licence Holder must submit a Marine Mammal Mitigation Plan(MMMP) for the approval of the Licensing Authority in consultation with NE and Cefas at least <b>four months</b> prior to the commencement of construction. The MMMP must detail;</p> <ul style="list-style-type: none"> <li>* Identity and credentials of Marine Mammal Observers and Passive Acoustic Monitoring Acoustic Monitoring Operators (PAM);</li> <li>* A reporting methodology to ensure efficient communication between the Marine Mammal Observers and the skipper of the piling vessels;</li> <li>* An area distance known as the Marine Mammal Monitoring Zone (MMMZ);</li> <li>* Soft start procedures (Refer to condition 5.2.38); and</li> <li>* Enhanced acoustic harassment or deterrent devices during periods of poor visibility (refer to condition 5.2.38).</li> </ul> <p>Reason: To provide suitable mitigation measures to prevent injury to marine mammals.</p>
<b>5.2.11</b>	<p>The Licence Holder must submit a proposal for the specification of the pre-construction (baseline) monitoring as outlined in Annex 1, for the approval of the Licensing Authority in consultation with Cefas and NE at least <b>four months</b> prior to the commencement of baseline survey works. Construction must not commence until the Licensing Authority has given its written acceptance of the baseline monitoring specification.</p> <p>Reason: To provide a robust baseline in order to measure the potential environmental impacts of the works.</p>
<b>5.2.12</b>	<p>The Licence Holder must submit a Monitoring Programme as outlined in Annex 1 of this Marine Licence, to be agreed with the Licensing Authority in consultation with Cefas and NE at least <b>four months</b> prior to the proposed commencement of the construction works. The Monitoring Programme shall include a timetable for construction and</p>

	<p>post construction monitoring and an annual and interim reporting mechanism.</p> <p>Reason: To ensure that information collated during and post construction is robust and tailored towards detecting changes from the baseline data and testing predictions outlined in the ES.</p>
<b>5.2.13</b>	<p>The Licence Holder must submit environmental monitoring reports to the Licensing Authority, Cefas, NE at the date specified in the Monitoring Programme as referred to in condition 5.2.12.</p> <p>Reason: In order to measure any changes against the pre-construction baseline, and where appropriate consider any action required to mitigate against any impacts.</p>
<b>5.2.14</b>	<p>The Licence Holder must submit an Ornithological Monitoring Programme (OMP) (as outlined in Annex 2 of this Licence) for the approval by the Licensing Authority in consultation with NE and The Royal Society for the Protection of Birds (RSPB) at least <b>four months</b> prior to the proposed commencement of pre-construction monitoring. The OMP must include the provisions needed for all stages (pre, during and post construction). The OMP must detail proposals for linking results of ornithological monitoring with monitoring of their prey. The Licence Holder must not commence construction until the full specification for the OMP has been agreed in writing by the Licensing Authority.</p> <p>Reason: To ensure that information collected is robust and tailored to detecting changes from baseline data and testing specific predictions outlined in the ES.</p>
<b>5.2.15</b>	<p>The Licence Holder must submit the reports required under the OMP referred to in condition 5.2.14 to the Licensing Authority, NE and RSPB at the date specified in the OMP.</p> <p>Reason: In order to measure and changes against the preconstruction baseline, and where appropriate consider any action required to mitigate against any impacts.</p>
<b>5.2.16</b>	<p>The Licence Holder must submit a Marine Mammal Monitoring Programme (as outlined in Annex 1 of this Licence) for the approval by the Licensing Authority in consultation with NE at least <b>four months</b> prior to the proposed commencement of pre-construction monitoring. The Marine Mammal Monitoring Programme must include proposals to</p>



	<p>observe marine mammal behaviour both pre construction and during installation of the turbines. The need for additional post construction monitoring will be determined by the Licencing Authority in consultation with NE.</p> <p>Reason: In order to measure any changes against the pre-construction baseline, and where appropriate consider any action required to mitigate against any impacts.</p>
5.2.17	<p>The Licence Holder must submit a Written Scheme of Investigation (WSI) to the Licensing Authority in consultation with EH and Norfolk County Council Historic Environment Service at least <b>four months</b> prior to construction. The WSI must include:</p> <ul style="list-style-type: none"> <li>* An Archaeological Protocol for the prompt reporting and recording of archaeological remains encountered, or suspected, during all phases of construction, operation and decommissioning. This must be set out as in The Crown Estate Protocol for Archaeological Discoveries Offshore Renewable Projects (published 2010):</li> <li>* Responsibilities of developer, archaeological consultant;</li> <li>* Details of contractors and curators (national and local);</li> <li>* Methodology for further site investigation including survey;</li> <li>* Specifications for geophysical, geotechnical and diver/ROV investigations;</li> <li>* Archaeological analysis and reporting of survey data and diver/ROV investigation to the Licensing Authority and curators;</li> <li>* Delivery of mitigation including use of archaeological construction exclusion zones in agreement with curators;</li> <li>* Monitoring during construction through to decommissioning and conservation, publication and archiving duties for archaeological material;</li> </ul> <p>Reason: To ensure the integrity of archaeologically important items is not compromised.</p>

<b>5.2.18</b>	<p>The Licence Holder must ensure that any wreck encountered or recovered in the delivery of this project must be reported to the Receiver of the Wreck in accordance with the Merchant Shipping Act 1995.</p> <p>Reason: To ensure the integrity of archaeologically important items is not compromised and to address any unforeseen situations in which archaeological material is encountered during the delivery of the project.</p>
<b>5.2.19</b>	<p>The Licence Holder must complete an OASIS (Online Access to the Index of Archaeological Investigations) form for any completed and agreed archaeological reports produced in accordance with condition 5.2.16. A copy must be submitted as a PDF file and sent to EH's National Monuments Record at <a href="http://oasis.ac.uk/">http://oasis.ac.uk/</a>.</p> <p>Reason: To ensure the integrity of archaeologically important items is not compromised and to ensure and final and agreed archaeological reports are recorded in a manner complementary to established practice.</p>
<b>5.2.20</b>	<p>The Licence Holder must inform the Licensing Authority immediately if archaeological construction exclusion zones are necessary. The results of any relevant surveys, as referred to in the WSI, and archaeological assessments shall be submitted to the Licensing Authority, EH and Norfolk County Council Historic Environment Service within <b>six months</b> of survey completion and no construction is to commence within the archaeological construction exclusion zone without the written agreement of the Licensing Authority.</p> <p>Reason: To ensure the integrity of archaeologically important items is not compromised.</p>
<b>5.2.21</b>	<p>If ploughing across the foreshore is used during export cable installation, then an archaeological watching brief must be agreed with the Licensing Authority in consultation with EH and Norfolk County Council prior to commencement of export cable installation.</p> <p>Reason: To ensure the integrity of archaeologically important items is not compromised.</p>
<b>5.2.22</b>	<p>The Licence Holder must undertake an assessment of the need to microsite individual turbine structures, inter-array cables and the export cable where Annex 1 habitats are identified. The results of the survey and assessment shall be submitted to the Licensing Authority and NE four months prior to commencement of construction and no construction is</p>

	<p>to commence without the written agreement of the Licensing Authority.</p> <p>Reason: To minimise the environmental impacts of the works.</p>
<b>5.2.23</b>	<p>The Licence Holder must ensure that Fisheries Liaison Officer or Officers (FLO) are appointed and the Licensing Authority notified of their identity and credentials before any construction work commences by including details as part of the PEMP referred to in condition 5.2.5. FLOs must establish and maintain effective communications between the Licence Holder, contractors, fishermen, conservation groups and other users of the sea during the project. The FLO remit will include:</p> <ul style="list-style-type: none"> <li>* Establishing and maintaining effective communications between the Licence Holder, contractors, fishermen, conservation groups and other users of the sea concerning the overall project and any amendments to the method statement and site environmental procedures;</li> <li>* Ensuring the safety of any persons engaged in fishing operations on the site of the wind farm in addition to any Safety Zone or Health and Safety Executive requirements during the conduct of any fisheries survey;</li> <li>* Ensuring that information is made available and circulated in a timely manner to minimise interference with fishing operations and other users of the sea.</li> </ul> <p>Reason: To minimise disruption to the fishing industry and ensure navigational safety.</p>
<b>5.2.24</b>	<p>The Licence Holder must ensure that an Environmental Liaison Officer(ELO) or officers are appointed and the Licensing Authority notified of their identity and credentials before any construction work commences by including details as part of the PEMP referred to in condition 5.2.5. Liaison officers must establish and maintain effective communications between the Licence Holder, contractors, fishermen, conservation groups and other users of the sea during the project. The ELO must:</p> <ul style="list-style-type: none"> <li>* Monitoring compliance with the commitments made in the Environmental Statement and the PEMP. Advising the Licensing Authority immediately if any issues arise in the delivery of agreed Monitoring Programmes as referred to in condition 5.2.12, 5.2.13, 5.2.14 and 5.2.15;</li> </ul>

	<ul style="list-style-type: none"> <li>* Providing a central point of contact for the Monitoring Programme;</li> <li>* Inducting site personnel on site / works environmental policy and procedures;</li> <li>* Delivering the functions and duties specified in the Archaeological Protocol for construction monitoring.</li> </ul> <p>Reason: To minimise the environmental impacts of the works.</p>
<b>5.2.25</b>	<p>The Licence Holder must ensure that details of the works are published prior to commencement, in the Kingfisher Fortnightly Bulletin (or any equivalent publication approved by the Licensing Authority) to inform the Sea Fish Industry of the vessel routes, timings and locations. They can be contacted at:- Kingfisher, Sea Fish Industry Authority, Seafish House, St Andrew's Dock, Hull. HU3 4QE. Email: kingfisher@seafish.co.uk, Website:www.seafish.org. Tel: 01482 327837 Fax 01482 223310. A copy of the Bulletin must be provided to the Licensing Authority prior to the commencement of construction.</p> <p>Reason: To reduce navigational risk by informing mariners of timings and location of works.</p>
<b>5.2.26</b>	<p>The Licence Holder must notify the Source Data Receipt Team at the UK Hydrographic Office, Taunton, Somerset, TA1 2DN (email hdcfiles@ukho.gov.uk: Tel 01823 337900) of the latitude and longitude and height of the turbines in advance of construction. They must also be notified of progress and completion of the works in order that all necessary amendments to nautical charts can be made.</p> <p>Reason: To reduce navigational risk by ensuring nautical charts are updated.</p>
<b>5.2.27</b>	<p>The Licence Holder must ensure that a Notice to Mariners (NTM) is issued at least 10 days prior to commencement of construction advising the start date of construction and the expected supply/construction vessel routes from the local service ports to the array. Updated NTM must be issued on a weekly basis and supplemented by VHF radio broadcasts as deemed appropriate and agreed with the Licensing Authority in consultation with the MCA. An additional NTM must be issued warning of the timing and route of laying for each submarine export cable. Dates for the initial notices and the frequency of the updates should be included in the agreed schedule required under condition 5.2.1.</p>

	<p>Reason: To reduce navigational risk by informing mariners of timings and locations of the works and allow them to safely plan and conduct their passage / activities.</p>
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<b>During the Works</b>	
<b>5.2.28</b>	<p>The Licence Holder must create, maintain and submit to the Licensing Authority a detailed transportation audit sheet prior to sailing, for all aspects of the wind farm construction. The audit sheet must be updated weekly and resubmitted to the Licensing Authority and must include loading facility, vessels, equipment, shipment routes, schedules, all materials (e.g. piles, cables, blades, nacelles, chemicals) and details of final installed location or confirmation of materials returned to shore. If the Licensing Authority becomes aware that any materials on the audit sheet are missing it will contact the Licence Holder who must undertake a targeted sidescan sonar survey in an area agreed with the Licensing Authority. If this fails to locate the missing component then the Licence Holder must undertake a sonar survey in grid lines (within operational safety constraints), across the area of development (includes turbine array, cable route, and any vessel access routes from UK local service port(s) to the construction site). Local fishermen must be invited to send a representative to be present during any surveys. All obstructions found on the seabed must be plotted. If the Licensing Authority has evidence to suggest any of these new obstructions are associated with the construction works they must be removed at the developer's expense.</p> <p>Reason: To ensure items are not lost overboard during transit that may cause a risk to navigation or the environment.</p>
<b>5.2.29</b>	<p>The Licence Holder must ensure that all chemicals utilised in the construction operations are selected from the List of Notified Chemicals assessed for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002 (this list can be viewed/downloaded at <a href="http://www.cefas.co.uk">www.cefas.co.uk</a>), or has been subject to a suitable eco-toxological risk assessment. Should any technique other than water-based mud be used in the drilling operation, written approval and guidance of disposal of any arisings must be obtained from the Licensing Authority.</p> <p>Reason: To ensure that chemicals utilised during the consented activity are safe for use within the marine environment.</p>

<b>5.2.30</b>	<p>The Licence Holder must ensure that any chemical agents placed within the void of the monopile, e.g. biocides, corrosion inhibitors, are selected from the List of Notified Chemicals. The use of any chemical within the void of the monopile not contained on this list will require prior consent from the Licensing Authority following a comparable eco-toxicological hazard/risk assessment undertaken at the Licence Holders own expense. The risk assessment may be incorporated into the CRA required by condition 5.2.4.</p> <p>Reason: To ensure that chemicals utilised during the consented activity are safe for use within the marine environment.</p>
<b>5.2.31</b>	<p>The Licence Holder must install bunding / storage facilities to contain and prevent the release of fuel, oils and chemicals associated with plant, refueling and construction equipment into the marine environment. Secondary containment must be used for a capacity of not less than 110% of the containers storage capacity.</p> <p>Reason: To prevent marine pollution incidents by adopting best practices.</p>
<b>5.2.32</b>	<p>The Licence Holder must ensure that all reasonable care is taken to prevent the release of chemicals (including cements, and grouts) into the marine environment. Any spills must be reported following the agreed protocol within the Marine Pollution Contingency Plan detailed in condition 5.2.3.</p> <p>Reason: To prevent marine pollution incidents by adopting best practices.</p>
<b>5.2.33</b>	<p>The Licence Holder must ensure that piling activities do not commence until half an hour has elapsed during which marine mammals have not been detected within area distance defined within the MMMP to be agreed in condition 5.2.10. The detection should be undertaken both visually (by Marine Mammal Observers) and acoustically using appropriate Passive Acoustic Monitoring equipment. Both the observers and equipment must be deployed at a reasonable time (to be identified in the MMMP referred to in condition 5.2.10) before piling is due to commence.</p> <p>Reason: To reduce the risk of injury to marine mammals.</p>
<b>5.2.34</b>	<p>The Marine Mammal Observers must maintain a record of any sightings of marine mammals, basking sharks and turtles within the Marine Mammal Monitoring Zone and action taken to avoid any injury and to minimise the risk of disturbance.</p>

	<p>The timing of submission of the reports must be detailed within the MMMP detailed in condition 5.2.10.</p> <p>Reason: To reduce the risk of injury to mobile sensitive receptors.</p>
<b>5.2.35</b>	<p>The Licence Holder must ensure that piling commences using an agreed soft start procedure. The duration and nature of this procedure must be discussed and agreed in writing with the Licensing Authority in consultation with NE prior to commencement of operations and submitted in the MMMP referred to in condition 5.2.10.</p> <p>Reason: To allow mobile sensitive receptors to move away from noise sources and reduce the likelihood of exposure to sounds which can cause injury.</p>
<b>5.2.36</b>	<p>The Licence Holder must ensure that at times of poor visibility e.g.night-time, foggy conditions and sea state greater than that associated with force 4 winds, enhanced acoustic monitoring of the zone is carried out prior to commencement of relevant construction activity and Acoustic Harassments (AH)/deterrent devices are used to ensure marine mammals are discouraged from entering the area. The detail of poor visibility monitoring and mitigation must be included in the MMMP required by condition 5.2.10.</p> <p>Reason: To reduce the risk of injury to marine mammals.</p>
<b>5.2.37</b>	<p>The Licence Holder must ensure that no pile driving activities associated with the construction of the wind farm are undertaken between <b>1st October</b> and <b>15th November</b> each year, unless the Licensing Authority provides written confirmation that works may take place inside this period.</p> <p>Reason: To reduce the risk of injury and disturbance to herring during the spawning period.</p>
<b>5.2.38</b>	<p>The Licence Holder must undertake measurements of the noise generated by the installation of the first four foundation pieces. The specification for these measurements must be agreed with the Licensing Authority, in consultation with Cefas and NE at least four months before construction work commences. The results of these initial measurements should be processed and a report submitted to the Licensing Authority within <b>one month</b> of the installation of the fourth foundation piece.</p>

	Reason: To validate predictions made within the ES with regard to magnitude of construction noise .
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<b>Upon Completion of the Works</b>	
<b>5.2.39</b>	<p>The Licence Holder must undertake a 100% coverage post construction bathymetric survey of the turbines and array within three months (within operational and safety constraints) of completion of construction of the wind farm to assess scour. The survey must be repeated at six monthly intervals for a period of three years. The Licence Holder must submit the data in the form of a report to the Licensing Authority, including proposals for scour protection measures by the date specified in the Monitoring Programme required under condition 5.2.12. This report shall specifically address the need for additional scour protection around the turbine pylons and associated cables.</p> <p>Reason: To validate predictions within the ES and assess the need for additional scour protection.</p>
<b>5.2.40</b>	<p>The Licence Holder must ensure that any debris or temporary works placed below Mean High Water Springs are removed on completion of the works authorised by this Licence. Drill cuttings, if drilled with water-based muds, can be left on the seabed within the boundaries of the turbine array.</p> <p>Reason: To prevent the accumulation of unlicensed debris and potential environmental damage, safety and navigational issues associated with such materials and debris.</p>
<b>5.2.41</b>	<p>The Licence Holder must carry out additional bathymetric surveys in the event of any major storm events likely to result in significant sediment movements (i.e. greater than a 1 in 10 year wave event at this site in terms of wave height). Wave data is currently available free from <a href="http://www.cefas.co.uk/wavenet/default.htm">http://www.cefas.co.uk/wavenet/default.htm</a>.</p> <p>Reason: To measure and where appropriate mitigate against changes in seabed levels and morphology.</p>
<b>5.2.42</b>	To measure and where appropriate mitigate against changes in seabed levels and morphology.



	<p>Reason:</p>
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	<p>To ensure measures are in place to decommission the works to an approved plan.</p>
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## **6 Compliance and enforcement**

This licence and its terms and conditions are issued under the Marine and Coastal Access Act 2009.

Any breach of the licence terms and conditions may lead to enforcement action being taken. This can include variation, revocation or suspension of the licence, the issuing of an enforcement notice, or criminal proceedings, which may carry a maximum penalty of an unlimited fine and / or a term of imprisonment of up to two years.

Your attention is drawn to Part 4 of the Marine and Coastal Access Act 2009, in particular sections 65, 85 and 89 which set out offences, and also to sections 86, 87 and 109 which concern defences. The MMO's Compliance and Enforcement Strategy can be found on our website (<https://www.gov.uk/government/publications/compliance-and-enforcement-strategy>).