

MS.MarineRenewables@gov.scot

MARINE (SCOTLAND) ACT 2010 & MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED), PART 4 MARINE LICENSING

LICENCE FOR MARINE RENEWABLES CONSTRUCTION, OPERATION AND DEPOSITS OF SUBSTANCES OR OBJECTS IN THE SCOTTISH MARINE AREA AND THE UNITED KINGDOM MARINE LICENSING AREA

Licence Number: 05515/17/0

Reference Number: MCMS/05515

The Scottish Ministers (hereinafter referred to as "the Licensing Authority") hereby grant a marine licence authorising:

**Hywind (Scotland) Limited,
One Kingdom Street, London W2 6BD.
Company Number: 08709450**

to:

- 1) deposit any substance or object (except for dredge spoil) in the sea or on or under the seabed within the Scottish marine area;
- 2) deposit any substance or object (except for dredge spoil) in the sea or on or under the seabed from a vessel which was loaded in Scotland or in the Scottish marine area; and
- 3) construct any works within the Scottish marine area in or over the sea, or under the seabed,

Under the Marine (Scotland) Act 2010, and to:

- 1) deposit any substance or object (except for dredge spoil) in the sea or on or under the seabed within the United Kingdom marine licensing area; and
- 2) construct any works within the United Kingdom marine licensing area in or over the sea, or under the seabed,

Under the Marine and Coastal Access Act 2009 (as amended),

required in the execution (including construction, operation and maintenance) of the Works described in Part 2 of the Schedule attached to this licence. The issue of this licence is subject to conditions as set out in Part 3 of the Schedule.

This licence remains in force from **31 August 2017 to 30th October 2037** or until the Works have been decommissioned in accordance with an approved Decommissioning Programme prior to this date.

Signed:

.....
Roger May

For and on behalf of the Licensing Authority

Date of issue: 31 August 2017

1. PART 1 – GENERAL

1.1. Interpretation

In this licence, unless otherwise stated, terms are as defined in sections 1, 64 and 157 of the Marine (Scotland) Act 2010 and sections 66(4), 115 and 322 of the Marine and Coastal Access Act 2009 (as amended), and;

- a) “the 2009 Act” means the Marine and Coastal Access Act 2009 (as amended);
- b) “the 2010 Act” means the Marine (Scotland) Act 2010;
- c) “the Application” means the marine licence application form, the environmental statement (“ES”) and associated documents submitted to the Licensing Authority by Hywind (Scotland) Limited (“Hywind”) on 27th March 2015;
- d) “Licensable Marine Activity” means the activities listed in section 66 of the 2009 Act and section 21 of the 2010 Act authorised under this licence;
- e) “Licensee” means Hywind (Scotland) Limited (“Hywind”), having its registered office at One Kingdom Street, London W2 6BD and company registration number as 08709450;
- f) “the Licensing Authority” means the Scottish Ministers;
- g) “Commencement of the Works” means the date on which the first vessel arrives on the Site to begin carrying out the Licensable Marine Activity in connection with the construction of the Works, as described in Part 2 of this licence;
- h) “Completion of the Works” means the date on which the Works have been installed in full, or the Works have been deemed complete by the Licensing Authority whichever occurs first;
- i) “Decommissioning of the Works” includes removal of the Works from the seabed, demolishing the Works or dismantling the Works;
- j) “Decommissioning Programme” means the programme for decommissioning the Works, to be submitted by the Licensee to the Secretary of State under section 105(2) of the Energy Act 2004 (as amended);
- k) “the Site” means the area outlined in the figure contained in Part 4 of this licence;
- l) “the Works” means the Hywind Scotland Pilot Park, as described in Part 2 of this licence;
- m) “MHWS” means mean high water spring tide; and
- n) “Final Commissioning of the Works” means the date on which all the Works have been used to supply electricity on a commercial basis to the National Grid, or such earlier date as the Licensing Authority deem the Works to be fully commissioned;

All geographical coordinates contained within this licence are in latitude and longitude format World Geodetic System 84 (“WGS84”).

1.2. Contacts

All correspondence or communications relating to this licence should be addressed to:

Marine Scotland
Licensing Operations Team
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

Tel: +44 (0) 1224 295579
Fax: +44 (0) 1224 295524
Email: ms.marinelicensing@gov.scot

1.3. Other authorisations and consents

The Licensee is deemed to have satisfied themselves that there are no barriers or restrictions, legal or otherwise, to the carrying out of the Licensable Marine Activity. The issuing of this licence does not absolve the Licensee from obtaining such other authorisations and consents which may be required under statute.

1.4. Variation, suspension, revocation and transfer

Under section 30 of the 2010 Act and section 72 of the 2009 Act, the Licensing Authority may by notice vary, suspend or revoke this licence if it appears to the Licensing Authority that there has been a breach of any of the provisions of this licence. Under section 30(3)(d) of the 2010 Act or section 72(3)(d) of the 2009 Act, the Licensing Authority may by notice vary etc. this licence for any such other reason that appears to be relevant to the Licensing Authority. Under the 2010 Act variations etc. of licences are subject to the procedures set out in section 31 of the Act.

Under section 30 of the 2010 Act and section 72 of the 2009 Act the Licensing Authority may on an application made by the Licensee, transfer this licence from the Licensee to another person.

Under section 30 of the 2010 Act, on an application made by a licensee, the Licensing Authority may vary a licence if satisfied that the variation being applied for is not material.

1.5. Breach of requirement for, or conditions of, licence

Under section 39 of the 2010 Act and section 85 of the 2009 Act it is an offence to carry out a Licensable Marine Activity without a marine licence and it is also an offence to fail to comply with any condition of a marine licence.

1.6. Defences: actions taken in an emergency

Under section 40 of the 2010 Act and section 86 of the 2009 Act it is a defence for a person charged with an offence under section 39(1) of the 2010 Act and section 85(1) of the 2009 Act, respectively, in relation to any activity to prove that the activity was carried out for the purpose of saving life or for the purpose of securing the safety of a vessel, aircraft or marine structure (*'force majeure'*) and that the person took steps within a reasonable time to provide full details of the matters to the Licensing Authority which are set out in section 40(2) of the 2010 Act and section 86(2) of the 2009 Act.

1.7. Offences relating to information

Under section 42 of the 2010 Act and section 89 of the 2009 Act it is an offence for a person to make a statement which is false or misleading in a material way, either knowing the statement to be false or misleading or being reckless as to whether the statement is false or misleading, or to intentionally fail to disclose any material information for the purpose of procuring the issue, variation or transfer of a marine licence or for the purpose of complying with, or purporting to comply with, any obligation imposed by either Part 4 of the 2010 Act and Part 4 of the 2009 Act or by this licence.

2. PART 2 – THE WORKS

2.1. Title of the Works

The title of the Works to which this licence relates is the 'Hywind Scotland Pilot Park Project'.

2.2. Description of the Works

The Licensee is proposing to develop a Pilot Park which is to be located approximately 25 km off the coast at Peterhead, North East Scotland just outside the 12 nm territorial water limit. The Licensable Marine Activity in respect of the Works includes construction, installation, operation and maintenance activities.

The Development will involve the installation of five 6 MW wind turbine generator units and will be expected to produce up to 135 GWh per year of electricity. The turbines are expected to have a hub (centre) height of no less than 82 m and no more than 101 m above Mean Sea Level and a height to tip of rotor blade of 181 m from MSL, with a draught of no less than 70 m to no more than 85 m and a rotor diameter of 154 m. The turbines will be positioned no less than 800 m to no more than 1,600 m apart and attached to the seabed by a three-point mooring spread and anchoring system. Three anchors will be required per turbine and the radius of the mooring system will extend no less than 600 m to no more than 1,200 m out from each turbine. The anchor and mooring system could be installed up to 18 months prior to the turbines being installed.

The turbines will be connected by inter-array cables which may require stabilisation by rock dumping in some locations. The export cable, which will transport electricity from the Pilot Park to shore at Peterhead, will be buried where seabed conditions allow. Where this is not possible cable protection in the form of concrete mattresses and rock will be required. Both the inter-array and export cables will have 33 kV transfer voltage. The export cable is planned to come ashore at Peterhead and connect to the local distribution network at SSE Peterhead Grange substation. The onshore Project infrastructure will comprise an underground cable approximately 1.5 km in length and a small switchgear yard facility close to Peterhead Grange substation.

In addition to the proposed Pilot Park area and associated offshore and onshore infrastructure, the Works will use a deep water inshore area, to assemble the turbines prior to installation. The location of this inshore assembly is still to be decided; however, suitable facilities on the west coast of Norway have been identified. Once assembled, the turbines will be towed in an upright position from the assembly point to the turbine deployment area in the Buchan Deep.

The Licensee aims to begin onshore construction in 2015/2016 followed by offshore construction in 2016/2017. This will allow for final commissioning of the Pilot Park in 2017. The Pilot Park is expected to have an operational life of 20 years and decommissioning will commence in the late 2030's. During the operational phase the Pilot Park will be serviced from a base most likely in Peterhead.

2.3. Location of the Works

The project in this instance comprises the marine elements (which are all elements of the project other than the onshore infrastructure) of the Works, to be sited in:

The Buchan Deep, approximately 25 km off the coast at Peterhead, within the area bounded by joining the following points:

57° 30.967' N	001° 47.361' W	57° 27.603' N	001° 22.797' W
57° 31.773' N	001° 44.466' W	57° 28.417' N	001° 23.762' W
57° 31.765' N	001° 41.780' W	57° 29.317' N	001° 24.430' W
57° 30.444' N	001° 37.620' W	57° 29.632' N	001° 32.779' W
57° 30.102' N	001° 35.383' W	57° 29.821' N	001° 35.447' W
57° 29.909' N	001° 32.783' W	57° 30.184' N	001° 37.804' W
57° 29.989' N	001° 23.573' W	57° 31.486' N	001° 41.889' W
57° 30.302' N	001° 23.033' W	57° 31.485' N	001° 44.102' W
57° 29.715' N	001° 19.542' W	57° 30.680' N	001° 46.571' W
57° 29.023' N	001° 18.691' W	57° 30.789' N	001° 47.013' W

2.4. Deposits

This licence authorises the deposit of the undernoted substances and objects required in connection with the Works, subject to the maximum amounts as specified below:

PERMANENT DEPOSITS

Project component	Material	No. required	Maximum total quantity of material and/or dimensions
WTG unit rotor and nacelle	Steel	5	2100 tonnes
WTG unit substructure	Steel	5	10,500 tonnes including ballast
WTG unit suction anchors	Steel	15	125 tonnes per suction anchor x 15 units total = 1,875 tonnes
WTG unit ballast	Concrete/iron ore slurry/water	n/a	40,000 tonnes
Inter array cables	n/a	5	15,000 m
Rock dump (cable and scour protection)	Rock - average particle size?	n/a	500 m/3750 tonnes rock.
Concrete bags/mattresses	Concrete		No concrete bags/mattresses are included in present design. Conceptual extent of mattresses for alternative landfall solution (not HDD base case) is 3 m X 450 m (permanent).
Rock berm (for cable crossings)	Concrete/rock	1	One crossing requires rock of approximately 375 tonnes
Export cable	n/a	1	35,000 m
Sea anchor (inter array cables)	Concrete or steel	11	20 tonnes each total 220 tonnes
Mooring lines	Steel		4,500 tonnes/18,000 m
HDD operation landfall	cutting from seabed breakthrough	15	4 m ³

2.5. Persons responsible for the deposits of the substances or objects

The operators, vessels and vehicles engaging in the Licensable Marine Activity must be notified to the Licensing Authority under condition 3.1.2 prior to their engagement in the Works:

Name of Vessel or Vehicle Registration	Operator	Type(s)
MCS Ailsa	Maritime Craft Services	Multicat/ Dive Support Vessel

Green Isle	Green Marine Energy Support Services	Multicat/ Dive Support Vessel
Green Chief	Green Marine Energy Support Services	Tugboat
MFV Morning Dawn PD359	Scottish Fishermen's Federation	Tugboat
Anitra PD67	Scottish Fishermen's Federation	Crew Transfer Vessel
Deep Explorer	TechnipFMC	Offshore support Vessel
Normand Prosper	Solstad	Main tug boat
Norman Drott	Solstad	Main tug boat
Normand Ranger	Solstad	Main tug boat
Union Manta	Boskalis	Assistance tug boat
Union Bear	Boskalis	Assistance tug boat
Union Lynx	Boskalis	Assistance tug boat
Skandi Acergy	Subsea 7	Cable laying vessel
Fugro Saltire	Subsea 7	Trenching support vessel
Union Lynx	Boskalis	Assistance tug boat
Woodstock I	Caldive Limited	Diving support vessel
Shuna	Caldive Limited	Crew transfer vessel
Allegiance	Uksnøy & Co AS	Guard vessel
Forth Drummer	Balfour Beatty	Diving support vessel
Fisher Boys	SFF	Guard vessel
Sardonyx	SFF	Guard vessel
World Passat	World Marine	Crew transfer vessel
UMOE Rapid	World Marine	Crew transfer vessel
Siem Moxie	Ulstein	Service operating vessel

2.6. Persons acting on behalf of the Licensee

The name and address of any agents, contractors or sub-contractors appointed to carry out any part, or all, of the Licensable Marine Activity must be notified to the Licensing Authority under condition 3.1.2 prior to their engagement in the Works:

Role	Company Name	Address	Contact Name
Electrical System Infrastructure, Principal Contractor	Balfour Beatty	Raynesway, Derby, DE21 7BG	Rob Luther / Graeme Hopkins
HDD Works, Subcontractor to Balfour Beatty	LMR	Egerton House, 2 Tower Road, Birkenhead, Wirral, CH41 1FN	Jez Seamans
Diving Activities Subcontractor to Balfour Beatty	REDS	Cottage Leap, Rugby, Warwickshire, CV21 3XP	Perry Symons
Marine Support, Subcontractor to Balfour Beatty	Maritime Craft Services	Maritime House, 69-71 Main Road, Fairlie KA29 0AD	Menno Kuyt
Engineering and procurement support	Aibel	Bergerveien 5, 1375 Billingstad, Norway	Marianne T. Kvaale
WTG and service agreement	Siemens Wind Power	Sir William Siemens Square GU16 8QD Frimley, Camberley, UK	Matthew Letts
Substructure fabrication	Navantia Windar	Avenida das Pias 15480, Fene, Spain	Antonio Perez Sanchez
Suction anchor fabrication	Isleburn	Airfield Road, Evanton, Ross-shire, UK, IV16 9XJ	Sean Nicholson
Mooring chain fabrication	Vicinary Marine	Palza Sagrado Corazon 448011, Bilbao, Spain	Soraya Yustos
Substructure mooring connection system	MacGregor Pusnes	4818 Færvik, Norway	Bjørn Bai
Tower fabrication	Navacel	Rivera de Axpe, 48950 Erandio, Spain	Asier Sadaba
Tower internals	Aluwind	Kielbergvej, 5750 Ringe, Denmark	E. Edal

Heavy lifting mating operations	Saipem	Wood Street 12-42, Kingston upon Thames, UK, KT1 1TG	Benjamin Stokes
Marine Operations	Technip FMC	Philip Pedersens vei, 1366 Lysaker, Norway	Yngve Børstad
Tow out, mooring chain installation and hook up (subcontractor to Technip FMC)	Solstad	P.O. Box 13, Vesavegen 39, 4280 Skudeneshavn, Norway	Joacim Andreassen
Tow out (subcontractor to Technip FMC)	Boskalis	P.O. Box 43, 3350 aa Papendrecht, The Neverlands	Evert Boerhof
Offshore cable fabrication	Nexans	Inspurten, 6450 Oslo, Norway	Olivier Codou
Offshore cable installation	Subsea 7	Prospect Road, Amhall Business Park, Aberdeenshire, UK, AB32 6FE	Per Kristian Forbod
Cable trenching (subcontractor to Subsea 7)	Fugro Subsea Services Limited	Fugro House, Denmore Road, Bridge of Don, Aberdeen, UK, AB23 8JW	Gordon Nicoll
Air-diving works (subcontractor to Subsea 7)	Caldive	29 Mackean Crescent, Castle Avenue Industrial Estate Invergordon, Ross-shire, UK, IV18 0SD	Ian Beaton
Air-diving works (subcontractor to Balfour Beatty)	Briggs Marine Contractors Limited	Seaforth House, Seaforth Place, Burntisland, Fife, UK, KY3 9AX	Alistair Blue
Assembly site services	NorSea Group	Risavika Havnering, 4056 Tanager, Norway	Kenneth Bjørholm
Solida ballasting and rock installation	Van Oord	Schaardijk 211, 3063 NH Rotterdam, The Netherlands	Koos Van Oord
Guard Vessel	Uksnøy & Co	Keiser Wilhelms gate 34, 6003 Ålesund, Norway	Danny Normandale
Guard Vessel	Scottish Fishermen's	24 Rubislaw Terrace,	John Watt

	Federation	Aberdeen, UK, AB10 1XE	
Crew transfer services	World Marine Offshore	Torskekaj 1, DK-6700 Esbjerg, Denmark	John Mejer
Execution of construction and commissioning activities	Siem Offshore Contractors GmbH	Bavinkstrasse 23, 26789 Leer, Germany	Bernt Omdal
Marine warranty surveyor	Global Maritime	Kanalsletta 8, 4033 Stanvanger, Norway	Svein Erik Skribeland
Third party verifications	Anko	Fjøsangervein 50, 5059 Bergen, Norway	Jan Helge Due

3. PART 3 – CONDITIONS

3.1. General conditions

3.1.1. Licence conditions binding other parties

All conditions attached to this licence bind any person who for the time being owns, occupies or enjoys any use of the Works for which this licence has been granted in relation to those licensed activities authorised under item 5 in section 21(1) of the 2010 Act and item 7 in section 66(1) of the 2009 Act whether or not this licence has been transferred to that person.

3.1.2. Vessels, vehicles, agents, contractors and sub-contractors

The Licensee must provide, as soon as reasonably practicable in advance of their engagement in any Licensable Marine Activity, the name and function of any vessel, vehicle, agent, contractor or sub-contractor appointed to engage in the Works. Where applicable the notification must include the master's name, vessel type, vessel IMO number and vessel owner or operating company.

Any changes to the supplied details must be notified to the Licensing Authority, in writing, prior to any vessel, vehicle, agent, contractor or sub-contractor engaging in the Licensable Marine Activity.

The Licensee must ensure that only those vessels, vehicles, agents, contractors or sub-contractors notified to the Licensing Authority are permitted to carry out any part of the Works.

The Licensee must satisfy themselves that any masters of vessels or vehicle operators, agents, contractors or sub-contractors are aware of the extent of the Works for which this licence has been granted, the activity which is licensed and the terms of the conditions attached to this licence. All masters of vessels or vehicle operators, agents, contractors and sub-contractors permitted to engage in the Works must abide by the conditions set out in this licence.

The Licensee must give a copy of this licence, and any subsequent variations made to this licence in accordance with section 30 of the 2010 Act and section 72 of the 2009 Act, ensuring it is read and understood, to the masters of any vessels, vehicle operators, agents, contractors or sub-contractors permitted to engage in the Works.

3.1.3. Force Majeure

Should the Licensee or any of their agents, contractors or sub-contractors, by any reason of *force majeure* deposit anywhere in the marine environment any substance or object, then the Licensee must notify the Licensing Authority of the full details of the circumstances of the deposit within 48 hours of the incident occurring (failing which as soon as reasonably practicable after that period of 48 hours has elapsed). *Force majeure* may be deemed to apply when, due to stress of weather or any other cause, the master of a vessel or vehicle operator determines that it is necessary to deposit the substance or object other than at the Site because the safety of human life or, as the case may be, the vessel, vehicle or marine structure is threatened. Under Annex II, Article 7 of the Convention for the Protection of the Marine Environment of the North-east Atlantic, the Licensing Authority is obliged to immediately report force majeure incidents to the Convention Commission.

3.1.4. Material alterations to the licence application

The Licensee must ensure that no deviation from the schedule specified in this licence is made without the further written approval of the Licensing Authority.

The Licensee must, where any information upon which the granting of this licence was based has after the granting of the licence altered in any material respect, notify the Licensing Authority of this fact, in writing, as soon as is practicable.

3.1.5. Submission of plans and specification of studies and surveys to the Licensing Authority

The Licensee must submit plans and the details and specifications of all studies and surveys that are required to be undertaken under this licence in relation to the Works, in writing, to the Licensing Authority for their written approval. Commencement of the studies or surveys and implementation of plans must not occur until the Licensing Authority has given its written approval to the Licensee.

Plans or the specification of studies and surveys prepared pursuant to another consent or licence relating to the Works by the Licensee or by a third party may also be used to satisfy the requirements of this licence.

3.1.6. Submission of reports to the Licensing Authority

The Licensee must submit all reports to the Licensing Authority, in writing, as are required under this licence within the time periods specified in this licence. Where it would appear to the Licensee that there may be a delay in the submission of the reports to the Licensing Authority, then the Licensee must advise the Licensing Authority of this fact as soon as is practicable and no later than the time by which those reports ought to have been submitted to the Licensing Authority under the terms of this licence.

The reports must include executive summaries, assessments and conclusions and any data will, subject to any rules permitting non-disclosure, be made publically available by the Licensing Authority or by any such party appointed at their discretion.

Reports prepared pursuant to another consent or licence relating to the Works by the Licensee or by a third party may also be used to satisfy the requirements of this licence.

3.1.7. Chemical usage

The Licensee must ensure that all chemicals which are to be utilised in the Works have been approved in writing by the Licensing Authority prior to use. All chemicals utilised in the Works must be selected from the List of Notified Chemicals assessed for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002 (as amended 2011), unless approved in writing by the Licensing Authority.

3.1.8. Environmental protection

The Licensee must ensure that all reasonable, appropriate and practicable steps are taken at all times to minimise damage to the Scottish marine area and the United Kingdom ("UK") marine licensing area caused by the Licensable Marine Activity authorised under this licence.

The Licensee must ensure appropriate steps are taken to minimise damage to the beach and foreshore by the Licensable Marine Activity.

The Licensee must ensure that all personnel adhere to the Scottish Marine Wildlife Watching Code where appropriate.

The Licensee must ensure that any debris or waste arising during the course of the Works are removed from the Site of the Works, as soon as is reasonably practicable, for disposal at a location above the MHWS approved by the Scottish Environment Protection Agency ("SEPA").

The Licensee must ensure that all substances and objects deposited during the execution of the Works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.

The Licensee must ensure that the risk of transferring marine non-native species to and from the Site is kept to a minimum by ensuring appropriate bio-fouling management practices are implemented during the Works.

The Licensee must ensure that if oil based drilling muds are utilised they must be contained within a zero discharge system. Any drill cuttings associated with the use of water-based drilling muds situated within Site of the Works need not be removed from the seabed.

3.1.9. Availability of the licence for inspection

The Licensee must ensure that copies of this licence and any subsequent amendments or variations, are available for inspection, at any reasonable time, by any authorised marine enforcement officer at:

- a) the premises of the Licensee;
- b) the premises of any agent, contractor or sub-contractor acting on behalf of the Licensee;
- c) any onshore premises directly associated with the Works; and
- d) aboard any vessel permitted to engage in the Works.

3.1.10. Inspection of the Works

The Licensee must ensure that any persons authorised by the Licensing Authority, are permitted to inspect the Works at any reasonable time. The Licensee must, as far as reasonably practicable, on being given reasonable notice by the Licensing Authority (of at least 72 hours), provide transportation to and from the Site for any persons authorised by the Licensing Authority to inspect the Site.

3.1.11. Emergencies

If the assistance of a Government Department (to include departments of Devolved Administrations) is required to deal with any emergency arising from:

- a) the failure to mark and light the Works as required by this licence;
- b) the maintenance of the Works; or
- c) the drifting or wreck of the Works,

to include the broadcast of navigational warnings, then the Licensee is liable for any expenses incurred in securing such assistance.

3.2. Conditions specific to the Works

3.2.1. Conditions applicable to all phases of the Works

3.2.1.1. Project Environmental Monitoring Programme (“PEMP”)

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, to submit a PEMP, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the Joint Nature Conservation Committee (“JNCC”), the Scottish Natural Heritage (“SNH”), Marine Scotland Science (“MSS”), the Dee District Salmon Fishery Board (“DeeDSFB”) and any other ecological advisors or organisations as required at the discretion of the Licensing Authority. The PEMP must be in accordance with the Application as it relates to environmental monitoring.

The PEMP must set out measures by which the Licensee must monitor the environmental impacts of the Works. Monitoring is required throughout the lifespan of the Works where this is deemed necessary by the Licensing Authority. Lifespan in this context includes pre-construction, construction, operational and decommissioning phases.

Monitoring must be done in such a way as to ensure that the data which is collected allows useful and valid comparisons between different phases of the Works. Monitoring may also serve the purpose of verifying key predictions in the Application. Additional monitoring may be required in the event that further potential adverse environmental effects are identified for which no predictions were made in the Application.

The Licensing Authority may agree that monitoring may be reduced or cease before the end of the lifespan of the Works.

The PEMP must cover, but not be limited to the following matters:

- a) Pre-construction, construction (if considered appropriate by the Licensing Authority) and post-construction monitoring surveys as relevant in terms of the Application and any subsequent surveys for:
 1. birds;
 2. non-native species;
 3. diadromous fish;
 4. benthic communities; and
 5. seabed scour and local sediment deposition.

- b) The participation by the Licensee in a National Strategic Bird Monitoring Framework (“NSBMF”) and surveys to be carried out in relation to regional and / or strategic bird monitoring which may include but not necessarily limited to:
 1. the avoidance behaviour of breeding seabirds around turbines;
 2. flight height distributions of seabirds at wind farm sites;
 3. displacement of auk species from wind farm sites; and
 4. effects on survival and productivity at relevant breeding colonies.

All initial methodologies for the above monitoring must be approved, in writing, by the Licensing Authority and, where appropriate, in consultation with the Forth and Tay Regional Advisory Group (“FTRAG”), referred to in condition 3.2.1.4. of this licence. Any pre-consent surveys carried out by the Licensee to address any of the above species may be used in part to discharge this condition subject to the written approval by the Scottish Ministers.

The PEMP is a live document and must be regularly reviewed by the Licensing Authority, at timescales to be determined by the Licensing Authority, in consultation with the FTRAG to identify the appropriateness of on-going monitoring. Following such reviews, the Licensing Authority may, in consultation with the FTRAG, require the Licensee to amend the PEMP and submit such an amended PEMP, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation with FTRAG and any other ecological, or such other advisors as may be required at the discretion of the Licensing Authority. The PEMP, as amended from time to time, must be fully implemented by the Licensee at all times.

The Licensee must submit written reports and associated raw data of such monitoring surveys to the Licensing Authority at timescales to be determined by the Licensing Authority in consultation with the FTRAG. Subject to any legal restrictions regarding the treatment of the information, the results are to be made publicly available by the Licensing Authority, or by such other party appointed at their discretion.

3.2.1.2. Environmental Management Plan (“EMP”)

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit an EMP, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the JNCC, SNH, SEPA, Aberdeenshire Council (“AC”) and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.

The EMP must set out a mechanism for the approval process for all proposed updates to the EMP. This must include, but not be limited to, a programme for the consideration of the consultation on, and any subsequent grant of approval of the proposed updated EMP, to be agreed in writing between the Licensee and the Licensing Authority.

The EMP must provide the over-arching framework for on-site environmental management during the phases of the Works as follows:

- a) all construction as required to be undertaken before the Final Commissioning of the Works; and
- b) the operational lifespan of the Works from the Final Commissioning of the Works until the cessation of electricity transmission (environmental management during decommissioning is addressed by condition 3.2.2.3.).

The EMP must be in accordance with the Application as it relates to environmental management measures. The EMP must set out the roles, responsibilities and chain of command of any Licensee personnel, any contractors or sub-contractors in respect of environmental management for the protection of environmental interests during the construction and operation of the Works. It must address, but not be limited to, the following over-arching requirements for environmental management:

- a) mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction surveys, and include the relevant parts of the Construction Method Statement (“CMS”);
- b) a completed Written Scheme of Investigation (“WSI”) approved by Historic Scotland;
- c) pollution prevention measures and contingency plans;
- d) management measures to prevent the introduction of marine non-native marine species;

- e) measures to minimise, recycle, reuse and dispose of waste streams; and
- f) the methods for responding to environmental incidents and the reporting mechanisms that will be used to provide the Licensing Authority and relevant stakeholders (including, but not limited to, the JNCC, SNH, SEPA, Maritime and Coastguard Agency ("MCA") and the Northern Lighthouse Board ("NLB")) with regular updates on construction activity, including any environmental issues that have been encountered and how these have been addressed.

The Licensee must, no later than 3 months prior to the Final Commissioning of the Works, submit an updated EMP, in writing, to cover the operation and maintenance activities for the Works to the Licensing Authority for their written approval. Such approval may be given only following consultation with the JNCC, SNH, SEPA, AC and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. The EMP must be regularly reviewed by the Licensee and the FTRAG (refer to condition 3.2.1.4.) over the lifespan of the Works, and be kept up to date (in relation to the likes of construction methods and operations of the Works in terms of up to date working practices) by the Licensee in consultation with the FTRAG.

The EMP must be informed, so far as is reasonably practicable, by the baseline surveys undertaken as part of the Application and the PEMP.

3.2.1.3. Fisheries Management and Mitigation Strategy ("FMMS")

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit a Fisheries Management and Mitigation Strategy ("FMMS"), in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the SFF and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. The Works must, at all times, be constructed in accordance with the approved FMMS (as updated and amended from time to time by the Licensee). Any updates or amendments made to the FMMS by the Licensee must be submitted, in writing, by the Licensee to the Licensing Authority for their written approval.

3.2.1.4. Forth and Tay Regional Advisory Group ("FTRAG")

The Licensee must participate in the FTRAG established by the Licensing Authority for the purpose of advising the Licensing Authority on research, monitoring and mitigation programmes for, but not limited to, non-native species, ornithology, marine mammals and commercial fish species. Should a Scottish Strategic Marine Environment Group ("SSMEG") be established (refer to condition 3.2.1.5.), the responsibilities and obligations being delivered by the FTRAG will be subsumed by the SSMEG at a timescale to be determined by the Licensing Authority.

3.2.1.5. Scottish Strategic Marine Environment Group ("SSMEG")

The Licensee must participate in any SSMEG established by the Licensing Authority for the purposes of advising the Licensing Authority on research, monitoring and mitigation programmes for, but not limited to, non-native species, ornithology, marine mammals and commercial fish species.

3.2.1.6. National Research and Monitoring Strategy for Diadromous Fish ("NRMSD")

The Licensee must, to the satisfaction of the Scottish Ministers, participate in the monitoring requirements as laid out in the NRMSD so far as they apply at a local level. The extent and

nature of the Licensee's participation is to be agreed by the Scottish Ministers in consultation with the FTRAG.

3.2.1.7. Health and safety incident

If any serious health and safety incident occurs on the Site requiring the Licensee to report it to the Health and Safety Executive, then the Licensee must also notify the Licensing Authority of the incident within 24 hours of the incident occurring.

3.2.1.8. Bunding and storage facilities

The Licensee must ensure suitable bunding and storage facilities are employed to prevent the release of fuel oils, lubricating fluids associated with the plant and equipment into the marine environment.

3.2.1.9. Restoration of the Site to its original condition

The Licensee must take all reasonable, appropriate and practicable steps to restore the Site to its original condition before any Licensable Marine Activity was undertaken, or to as close to its original condition as is reasonably practicable, in accordance with the PEMP and the Decommissioning Programme ("DP") to the satisfaction of the Licensing Authority. Should the Licensed Marine Activity be discontinued prior to Completion of the Works, the Licensee must inform the Licensing Authority in writing of the discontinuation of the Works. This licence will be varied under section 30(3) of the 2010 Act following procedures laid out under section 31 of the 2010 Act, and under section 72(3) of the 2009 Act to allow the removal of Works already installed.

3.2.1.10. Emergency Response Co-operation Plans ("ERCoP")

The Licensee must, in discussion with the MCA's Search and Rescue Branch, complete an ERCoP. Detailed completion of the plan will be in co-operation with the National Maritime Operations Centre ("NMOC"). The ERCoP should include full details for the construction, operation and decommissioning phases of the authorised scheme in accordance with MCA recommendations contained within Marine Guidance Notice ("MGN") 371 and 372 (or subsequent updates). A copy of the final plan must be submitted to the Licensing Authority no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works.

3.2.2. Prior to the Commencement of the Works**3.2.2.1. Commencement date of the Works**

The Licensee must, prior to and no less than 1 month before the Commencement of the Works, notify the Licensing Authority, in writing, of the date of Commencement of the Works authorised under this Licence.

3.2.2.2. Bathymetry surveys

The Licensee must, prior to the Commencement of the Works, complete a full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a of the area(s) within the Order limits in which it is proposed to carry out construction works, including a 500 m buffer area around the site of each work, inclusive of seabed anomalies or sites of historic or archaeological interest that lie within that 500 m buffer.

3.2.2.3. Decommissioning Programme (“DP”)

Where the Secretary of State has, following consultation with the Licensing Authority, given notice requiring the Licensee to submit to the Secretary of State a DP, pursuant to section 105(2) and (5) of the Energy Act 2004, then construction may not begin on the Site of the Works until after the Licensee has submitted to the Secretary of State a DP in compliance with that notice.

3.2.2.4. Construction Programme (“CoP”)

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit a CoP, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the JNCC, SNH, SEPA, MCA, NLB, AC and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.

The CoP must set out:

- a) the proposed date for Commencement of the Works;
- b) the proposed timings for mobilisation of plant and delivery of materials, including details of onshore lay-down areas;
- c) the proposed timings and sequencing of construction work for all elements of the Works infrastructure;
- d) contingency planning for poor weather or other unforeseen delays; and
- e) the scheduled date for Final Commissioning of the Works.

The Licensee must, prior to the Commencement of the Works, provide a copy of the final CoP, and any subsequent revisions as agreed by the Licensing Authority, to BP Exploration Operating Company Limited (“BP”), Defence Geographic Centre (“DGC”) and the Ministry of Defence (“MOD”).

3.2.2.5. Construction Method Statement (“CMS”)

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit a CMS, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the JNCC, SNH, SEPA, MCA, NLB, AC and any such other advisors or organisations as may be required at the discretion of the Licensing

Authority. The CMS must set out the construction procedures and good working practices for constructing the Works. The CMS must also include details of the roles and responsibilities, chain of command and contact details of company personnel, any contractors or sub-contractors involved during the construction of the Works. The CMS must be in accordance with the construction methods assessed in the Application and must include details of how the construction related mitigation steps proposed in the Application are to be delivered.

The Works must, at all times, be constructed in accordance with the approved CMS (as updated and amended from time to time by the Licensee). The CMS must, so far as is reasonably practicable, be consistent with the Development Specification and Layout Plan (“DSLPL”), the EMP, the Vessel Management Plan (“VMP”), the Navigational Safety Plan (“NSP”), the Cable Plan (“CaP”) and the Lighting and Marking Plan (“LMP”).

3.2.2.6. Development Specification and Layout Plan (“DSLPL”)

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit a DSLPL, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the MCA, NLB, the Chamber of Shipping (“CoS”), the JNCC, SNH, Civil Aviation Authority (“CAA”), the Scottish Fishermen’s Federation (“SFF”) and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.

The DSLPL must include, but not be limited to the following:

- a) a plan showing the proposed location of each individual WTG (subject to any required micro-siting), including information on WTG spacing, WTG identification / numbering, location of the substation platforms, seabed conditions, bathymetry, confirmed mooring type for each WTG and any key constraints recorded on the Site;
- b) a list of latitude and longitude coordinates accurate to three decimal places of minutes of arc for each WTG. This should also be provided as a Geographic Information System (“GIS”) shape file using WGS84 format;
- c) the generating capacity of each WTG used on the Site and a confirmed generating capacity for the Site overall;
- d) the finishes for each WTG (see condition 3.2.2.11. Lighting and Marking Plan);
- e) the length and proposed arrangements on the seabed of all inter-array cables; and
- f) the mooring system: a list of latitude and longitude coordinates accurate to three decimal places of minutes of arc for each anchor point, this should also be provided as a GIS shape file using WGS84 format.

The Licensee must, prior to the Commencement of the Works, provide a copy of the final DSLPL, and any subsequent revisions as agreed by the Licensing Authority, to the MOD.

3.2.2.7. Vessel Management Plan (“VMP”)

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit a VMP, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the JNCC, SNH, MCA, NLB, CAA, AC and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.

The VMP must include, but not be limited to, the following details:

- a) the number, types and specification of vessels required;

- b) working practices to minimise disturbance to auk species during July / August;
- c) how vessel management will be coordinated, particularly during construction but also during operation;
- d) location of working port(s), how often vessels will be required to transit between port(s) and the Site and indicative vessel transit corridors proposed to be used; and
- e) any required aviation lighting fitted to turbines during tow to site.

The confirmed individual vessel details must be notified to the Licensing Authority in writing no later than 14 days prior to the Commencement of the Works, and thereafter, any changes to the details supplied must be notified to the Licensing Authority, as soon as practicable, prior to any such change being implemented in the construction or operation of the Works.

The VMP must, so far as is reasonably practicable, be consistent with the CMS, the DSLP the EMP, the PEMP, the Navigational Safety Plan (“NSP”), and the Lighting and Marking Plan (“LMP”).

3.2.2.8. Navigational Safety Plan (“NSP”)

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit a NSP, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with MCA, NLB and any other navigational advisors or organisations as may be required at the discretion of the Licensing Authority. The NSP must include, but not be limited to, the following:

- a) navigational safety measures;
- b) construction safety zones;
- c) Notice(s) to Mariners and Radio Navigation Warnings;
- d) anchoring areas;
- e) temporary construction lighting and marking;
- f) emergency response and coordination arrangements for the construction, operation and decommissioning phases of the Works; and
- g) buoyage.

The Licensee must confirm within the NSP that they have taken into account and adequately addressed all of the recommendations of the MCA in the current Marine Guidance Note 371 (or subsequent update), and its annexes, that may be appropriate to the Works, or any other relevant document which may supersede said guidance prior to approval of the NSP.

3.2.2.9. Operation and Maintenance Programme (“OMP”)

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit an OMP, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the JNCC, SNH, SEPA, MCA, NLB, AC and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. The OMP must set out the procedures and good working practices for the operations and maintenance of the WTG, substructures, and cable network of the Works. Environmental sensitivities which may affect the timing of the operation and maintenance activities must be considered in the OMP.

The OMP must, so far as is reasonably practicable, be consistent with the EMP, the PEMP, the VMP, the NSP, the CaP and the LMP.

3.2.2.10. Cable Plan (“CaP”)

The Licensee must, no later than 6 months, or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit a CaP, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the JNCC, SNH, AC, MSS, MCA, and the SFF and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. The CaP must be in accordance with the Application.

The CaP must include but not be limited to the following:

- a) details of the location and cable laying techniques for the export cable and inter-array cable;
- b) the results of survey work (including geophysical, geotechnical and benthic surveys) which will help inform cable routing;
- c) a pre-construction survey for Annex 1 habitat and priority marine features to inform cable micro-siting and installation methods in consultation with the Licensing Authority and their advisors;
- d) technical specification of all cables, including a desk based assessment of attenuation of electromagnetic field strengths and shielding;
- e) a burial risk assessment to ascertain if burial depths can be achieved. In locations where this is not possible then suitable protection measures must be provided;
- f) methodologies for surveys of the cables through the operational life of the Works where mechanical protection of cables laid on the sea bed is deployed. Suitable mitigation should be put in place where hazards have been identified caused by cable burial or protection, i.e., over trawling;
- g) methodologies for inter array cable inspection with measures to address and report to the Licensing Authority any exposure of any cables; and
- h) ensure that the new pipeline which is to be laid for the Carbon Capture Project from Peterhead power station to the existing gas pipeline that runs from the Goldeneye platform to St. Fergus is taken into consideration.

3.2.2.11. Lighting and Marking Plan (“LMP”)

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit a Lighting and Marking Plan (“LMP”), in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the AC, MCA, NLB, CAA, MOD and any such other advisors as may be required at the discretion of the Licensing Authority.

The LMP must include but not be limited to the following:

- a) lighting and marking in accordance with the current MCA, CAA and MOD navigational and aviation lighting policy and guidance that is in place as at the date of the Licensing Authority approval of the LMP, or any such other documents that may supersede said guidance prior to the approval of the LMP;
- b) navigational lighting requirements detailed in International Association of Marine Aids to Navigation and Lighthouse Authorities (“IALA”) Recommendations O-139 or any other documents that may supersede said guidance prior to approval of the LMP in agreement with NLB;
- c) sound signals requirements; and
- d) AIS requirements e.g. fitted to turbines HS1 and HS3.

3.2.2.12. Compliance with and amendments to approved plans

The Licensee must, at all times, construct the Works in accordance with the approved EMP, CoP, CMS, DSLP, VMP, NSP, CaP, OMP, FMMS and LMP (as updated and amended from time to time by the Licensee).

Any updates or amendments made to the EMP, CoP, CMS, DSLP, VMP, NSP, CaP, OMP, FMMS and LMP by the Licensee must be submitted, in writing, by the Licensee to the Licensing Authority for their written approval.

3.2.2.13. Environmental Clerk of Works (“ECoW”)

Prior to the Commencement of the Works, and for the duration of the Works, the Licensee must at its own expense, and with the approval of the Licensing Authority in consultation with the JNCC and SNH, appoint an independent ECoW. The ECoW must be appointed in time to review and approve the final draft version of the first plan or programme submitted under this consent to the Licensing Authority for approval, until the Final Commissioning of the Works.

The Licensee will provide a detailed ECoW Scope of Works for consideration and approval by the Licensing Authority. The Scope of Works will set out, as a minimum:

- i. Roles and Responsibilities;
- ii. Resourcing;
- iii. Reporting Mechanisms; and
- iv. Post Construction Monitoring.

The responsibilities of the ECoW must include, but not be limited to:

- a) quality assurance of final draft version of all plans and programmes required under this licence;
- b) provide advice to the Licensee on compliance with licence conditions, including the conditions relating to the CMS, the EMP, the PEMP, the OMP, the CaP and the VMP;
- c) monitor compliance with the CMS, the EMP, the PEMP, the OMP, the CaP and the VMP; permits, legislation and guidance associated with this licence;
- d) report back to the Licensing Authority who will respond to instances of non-compliance, in consultation with relevant stakeholders;
- e) provide reports on point c) above to the Licensing Authority at timescales to be determined by the Licensing Authority; and
- f) inducting site personnel on the Site / the Works environmental policy and procedures.

The ECoW role may be carried out by a party appointed by the Licensee or a third party to carry out an equivalent role pursuant to other consents or licences granted in relation to the Works and subject to the written approval of the Licensing Authority.

3.2.2.14. Fisheries Liaison Officer (“FLO”)

Prior to the Commencement of the Works, a FLO, approved by the Licensing Authority in consultation with the SFF, must be appointed by the Licensee for the period from Commencement of the Works until the Final Commissioning of the Works. The Licensee must notify the Licensing Authority of the identity and credentials of the FLO before Commencement of the Works by including such details in the EMP (refer to condition 3.2.1.2.). The FLO must establish and maintain effective communications between the

Licensee, any contractors or sub-contractors, fishermen and other users of the sea during the construction of the Works, and ensure compliance with best practice guidelines whilst doing so.

The responsibilities of the FLO must include, but not be limited to:

- a) establishing and maintaining effective communications between the Licensee, any contractors or sub-contractors, fishermen and other users of the sea concerning the Works and any amendments to the CMS and site environmental procedures;
- b) provision of information relating to the safe operation of fishing activity on the Site of the Works; and
- c) ensuring that information is made available and circulated in a timely manner to minimise interference with fishing operations and other users of the sea.

The FLO role may be carried out by a party appointed by the Licensee or a third party to carry out an equivalent role pursuant to other consents or licences granted in respect of the Works and subject to the written approval of the Licensing Authority.

3.2.2.15. Navigation and Aviation Safety and Charting

The Licensee must, as soon as reasonably practicable prior to Commencement of the Works, notify the UK Hydrographic Office (“UKHO”) of the proposed works to facilitate the promulgation of maritime safety information and updating of nautical charts and publications through the national Notice to Mariners system.

The Licensee must, as soon as reasonably practicable prior to the Commencement of the Works, ensure that local mariners, fishermen's organisations and HM Coastguard, in this case the National Maritime Operations Centre, is made fully aware of the Licensable Marine Activity through local Notice to Mariners or any other appropriate means.

The Licensee must ensure that details of the Works are promulgated in the Kingfisher Fortnightly Bulletin, as soon as reasonably practicable prior to the Commencement of the Works, to inform the Sea Fish Industry of the vessel routes, the timings and the location of the Works and of the relevant operations.

The Licensee must, prior to Commencement of the Works, complete an “Application for Statutory Sanction to Alter / Exhibit” form and submit this to the NLB for the necessary sanction to be granted.

The Licensee must, prior to the Commencement of the Works, and following confirmation of the approved DSLP by the Licensing Authority, provide the precise location and maximum heights of all WTG and construction equipment over 150 m above lowest astronomical tide (“LAT”), to the UKHO for aviation and nautical charting purposes.

3.2.2.16. Air Defence Radar Mitigation Scheme

The Licensee must, prior to the commencement of the Works, submit Air Defence Radar Mitigation Scheme (“the ADRM scheme”), in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with the MOD.

For the purposes of this condition, the ADRM Scheme means a detailed scheme to mitigate the adverse impacts of the works on the air defence radar at Remote Radar Head (“RRH”) Buchan and the air surveillance and control operations of the MOD. The scheme will set out the appropriate measures to be implemented to that end.

No turbines shall become operational until the mitigation measures, which the approved ARDM Scheme requires to be implemented prior to the operation of the turbines, have been implemented, and the Licensing Authority has confirmed this in writing.

No turbines shall become operational until any performance criteria specified in the approved ADRM Scheme, and which the approved ADRM Scheme requires to have been satisfied prior to the operation of the turbines, have been satisfied.

The Licensee shall thereafter comply with all other obligations contained within the approved ADRM Scheme for the duration of the operation of the Development.

3.2.2.17. Primary Radar Mitigation Scheme

No part of any turbine shall be erected above ground until a Primary Radar Mitigation Scheme agreed with the Operator has been submitted to and approved in writing by the Licensing Authority and following consultation with the Operator, in order to avoid the impact of the Development on the Primary Radar of the Operator located at Perwinnes and associated air traffic management operations.

No part of any turbine shall be erected above ground until the approved Primary Radar Mitigation Scheme has been implemented and the Works shall thereafter be operated fully in accordance with such approved Scheme.

For the purposes of this condition:

- a) "Operator" means NATS (En Route) plc, incorporated under the Companies Act (4129273) whose registered office is 4000 Parkway, Whiteley, Fareham, Hants PO15 7FL or such other organisation licensed from time to time under sections 5 and 6 of the Transport Act 2000 to provide air traffic services to the relevant managed area (within the meaning of section 40 of that Act); and
- b) "Primary Radar Mitigation Scheme" or "Scheme" means a detailed scheme agreed with the Operator which sets out the measures to be taken to avoid at all times the impact of the development on the Perwinnes primary radar and air traffic management operations of the Operator.

3.2.2.18. Third Party Certification or Verification ("TPC" or "TPV")

The Licensee must, no later than 6 months prior to the Commencement of the Works, provide the Licensing Authority (unless otherwise agreed, in writing, with the Licensing Authority) with TPC or TPV (or suitable alternative as agreed, in writing, with the Licensing Authority) of the basis of design for all WTGs mooring systems, spars and WTGs platform structures.

3.2.2.19. Marine Archaeology Reporting Protocol ("MARP")

The Licensee must, no later than 6 months or at such a time as agreed with the Licensing Authority, prior to the Commencement of the Works, submit a MARP which sets out what the Licensee must do on discovering any marine archaeology during the construction, operation, maintenance and monitoring of the Works, in writing, to the Licensing Authority for their written approval. Such approval may be given only following consultation by the Licensing Authority with Historic Scotland and any such other advisors as may be required at the discretion of the Licensing Authority. The MARP must be implemented in full, at all times, by the Licensee.

3.2.2.20. Forties Pipeline System Mitigation

The Licensee must ensure that prior to the Commencement of the Works a fully termed Rock Dumping Agreement is agreed by BP and the Licensee in accordance with the signed agreement between BP and the Statoil in respect of rock dumping works to be carried out to mitigate the risk of damage to the Forties Pipeline System ("FPS") from the Hywind Scotland Pilot Park Project.

The Oil and Gas Authority must be informed when this agreement is reached.

All Works must be carried out in accordance with this agreement and must be completed prior to commencement of the Hywind offshore construction activity with the rock berm detailed design as recommended by the WoodGroupKenny (J00586-00-WGK) rock dumping study and jointly agreed by BP and the Licensee.

3.2.3. During the construction of the Works

3.2.3.1. Transportation audit sheet

The Licensee must create, complete and submit to the Licensing Authority on the first working day of the month, a detailed transportation audit sheet for each month during the period when Construction of the Works is undertaken, for all aspects of the Construction of the Works. The transportation audit sheet must include information on the loading facility, vessels, equipment, shipment routes, schedules and all materials to be deposited (as described in Part 2 of this licence) in that month. Where, following the submission of a transportation audit sheet to the Licensing Authority, any alteration is made to the component parts of the transportation audit sheet, the Licensee must notify the Licensing Authority of the alteration in the following month's transportation audit sheet.

If the Licensee becomes aware of any substances or objects on the transportation audit sheet that are missing, or an accidental deposit occurs, the Licensee must contact the Licensing Authority as soon as practicable after becoming aware, for advice on the appropriate remedial action. Should the Licensing Authority deem it necessary, the Licensee must undertake a side scan sonar survey in grid lines (within operational and safety constraints) across the area of the Works, to include cable routes and vessel access routes from local service port(s) to the Site to locate the substances or objects. If the Licensing Authority is of the view that any accidental deposits associated with the Construction of the Works are present, then the deposits must be removed by the Licensee as soon as is practicable and at the Licensee's expense.

3.2.3.2. Nature and quantity of deposited substances and objects

The Licensee must, in addition to the transportation audit sheets required to be submitted to the Licensing Authority under condition 3.2.3.1., following the Commencement of the Works, submit audit reports, in writing, to the Licensing Authority, stating the nature and quantity of all substances and objects deposited below MHWS under the authority of this licence. Such audit reports must be submitted in writing to the Licensing Authority, by the Licensee, at 6 monthly intervals, with the first such report being required to be submitted on a date no later than 6 months following the Commencement of the Works. Where appropriate, nil returns must be provided.

3.2.3.3. Navigational safety

The Licensee must notify the UKHO of the progress of the Works to facilitate the promulgation of maritime safety information and updating of nautical charts and publications through the national Notice to Mariners system.

The Licensee must notify, from Kirkwall to Stonehaven, local mariners, fishermen's organisations and HM Coastguard, in this case the National Maritime Operations Centre, of the progress of Construction of the Works through local Notice to Mariners or any other appropriate means.

The Licensee must ensure that the progress of Construction of Works is promulgated in the Kingfisher Fortnightly Bulletin to inform the Sea Fish Industry of the vessel routes, the timings and the location of the Works and of the relevant operations.

The Licensee must notify the Licensing Authority, in writing, as soon as reasonably practicable, of any case of damage to or destruction or decay of the Works. The Licensing Authority will advise, in writing, of any remedial action to be taken and any requirement to

display aids to navigation, following consultation with the MCA, the NLB or any such advisers as required.

The Licensee must ensure that any Emergency Response and Rescue Vehicle (“ERRV”) and/or cable-laying vessel permitted to engage in the Works must be equipped with and operate, an Automatic Identification System (“AIS”) and Automatic Radar Plotting Aids (“ARPA”).

The Licensee must ensure that no radio beacon or radar beacon operating in the marine frequency bands is installed or used on the Works without the prior written approval of the Office of Communications (“OfCom”).

The Licensee must ensure that navigational safety is not compromised by the Works. The navigable depth must not be altered by more than 5% of stated Chart Datum unless otherwise agreed, in writing, with the Licensing Authority in consultation with the MCA and NLB.

3.2.3.4. Horizontal Directional Drilling (“HDD”)

The Licensee must ensure the seaward exit point of the HDD, if used, will be located as far offshore as reasonably practicable towards the depth of closure; the landward exit point of the HDD will be located onshore of the high-water mark, which may move landward due to coastal retreat; and the cables will be suitably buried between the seaward exit of the HDD and the depth of closure (the depth of water beyond which annually significant wave events will cease to contribute to beach sediment supply and morphological processes).

3.2.4. Conditions upon Completion of the Works

3.2.4.1. Date of Completion of the Works

The Licensee must, no more than 1 month following the Completion of the Works, notify the Licensing Authority, in writing, of the date of Completion of the Works.

3.2.4.2. Nature and quantity of deposited substances and objects

The Licensee must, no later than 1 month following the Completion of the Works, submit a final audit report, in writing, to the Licensing Authority stating the nature and quantity of all substances and objects deposited below MHWS within the Scottish marine area and the UK marine licensing area under the authority of this licence. Where appropriate, nil returns must be provided.

3.2.4.3. Final Commissioning of the Works

The Licensee must, no more than 1 month following the Final Commissioning of the Works, notify the Licensing Authority, in writing, of the date of the Final Commissioning of the Works.

3.2.4.4. Navigational safety

The Licensee must notify the UKHO of the Completion of the Works to facilitate the promulgation of maritime safety information and updating of nautical charts and publications through the national Notice to Mariners system.

The Licensee must, within 1 month of Completion of the Works, provide the "as-built" positions and maximum heights of all WTGs, along with any sub-sea infrastructure, cable landing points and changes to navigable depths, to the UKHO for nautical charting purposes.

The Licensee must ensure that local mariners, fishermen's organisations and HM Coastguard, in this case the National Maritime Operations Centre, are made fully aware of the Completion of the Works.

The Licensee must ensure that the Completion of the Works is promulgated in the Kingfisher Fortnightly Bulletin to inform the Sea Fish Industry.

The Licensee must notify the Licensing Authority, in writing, as soon as reasonably practicable, of any case of damage to or destruction or decay of the Works. The Licensing Authority will advise, in writing, of any remedial action to be taken and any requirement to display aids to navigation, following consultation with the MCA, the NLB or any such advisers as required.

The Licensee must ensure that no radio beacon or radar beacon operating in the marine frequency bands is installed or used on the Works without the prior written approval of the OfCom.

As per the requirements of MCA's MGN 371 and supplementary updates, the Licensee must complete post-installation hydrographic surveys of the consented area or subsections thereof, to the IHO Order 1a survey standard. On completion of these survey the data and a corresponding report of survey must be supplied to the UKHO, with notification to the MCA Hydrography Manager.

The Licensee must ensure that the required IALA availability target for Category 1 Aids to Navigation (“AtoN”) is achieved through redundancy, monitoring and repair, must be in place and arrangements made to warn the mariner promptly of any AtoN fault and its subsequent return to fully operational service.

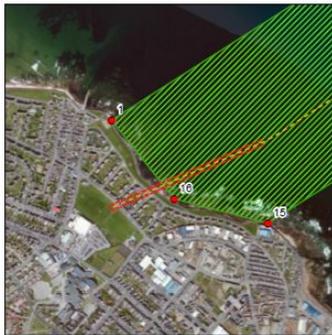
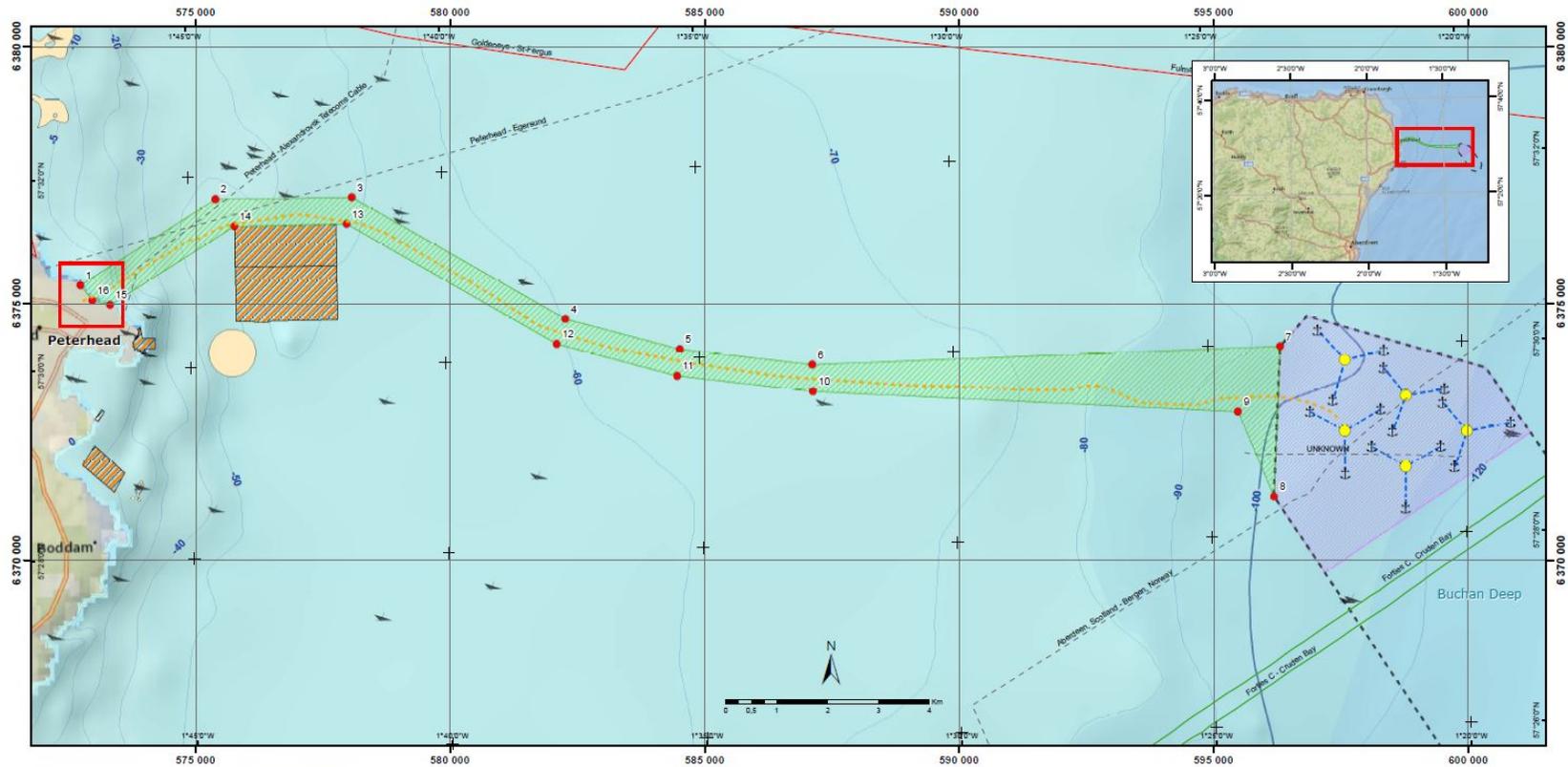
3.2.4.5. Environmental protection

The Licensee shall ensure the beach and foreshore is returned to the original profile, or as close as reasonably practicable, following Completion of the Works.

3.2.4.6. Decommissioning

This licence does not permit the Decommissioning of the Works, for which a separate marine licence is required.

4. PART 4 – PROJECT LOCATION



Coordinates for Proposed AFL Export Route Corridor

Datum: WGS84
Projection: UTM zone 30N

Point ID	Easting	Northing	LON	LAT
1	572 521	6 375 486	1°47' 21,676" W	57° 30' 58,010" N
2	575 383	6 377 035	1°44' 27,989" W	57° 31' 46,394" N
3	578 065	6 377 069	1°41' 46,777" W	57° 31' 45,870" N
4	582 265	6 374 701	1°37' 37,201" W	57° 30' 26,625" N
5	584 512	6 374 113	1°35' 23,000" W	57° 30' 06,142" N
6	587 116	6 373 810	1°32' 47,009" W	57° 29' 54,561" N
7	596 311	6 374 165	1°23' 34,389" W	57° 29' 59,351" N
8	596 191	6 371 243	1°23' 45,722" W	57° 28' 24,992" N
9	595 484	6 372 808	1°24' 25,813" W	57° 29' 19,022" N
10	587 131	6 373 294	1°32' 46,741" W	57° 29' 37,895" N
11	584 459	6 373 590	1°35' 26,829" W	57° 29' 49,285" N
12	582 091	6 374 214	1°37' 48,246" W	57° 30' 11,020" N
13	577 965	6 376 549	1°41' 53,360" W	57° 31' 29,135" N
14	575 757	6 376 507	1°44' 06,104" W	57° 31' 29,123" N
15	573 320	6 374 969	1°46' 34,246" W	57° 30' 40,824" N
16	572 874	6 375 162	1°47' 00,802" W	57° 30' 47,330" N

Legend

- - - Inactive cable
- ⚓ Planned WTG Mooring Anchors
- Planned WTG Locations
- - - Planned WTG Mooring Lines
- Planned Export Cable
- AFL_Export_Cable_Route_Points_wgs84utm30n
- ▨ Proposed AFL Export Cable Route Corridor
- ▨ AFL - Pilot Park Area
- ▨ Planned Turbine Deployment Area
- ⚓ Wrecks
- ▨ Foul Ground
- ▨ Dumping Grounds

Pipelines, Operating, Global (IHS)

- Gas
- Oil
- Unknown

02	17.10.2014	ISSUED FOR INFORMATION	HEHAGN	AVF
01	14.10.2014	ISSUED FOR INFORMATION	HEHAGN	AVF
no.	date	status	prepared	verified
project name		Hywind Scotland		
drawing title		Proposed AFL Export Cable Route Corridor		
country/area		Scotland / Buchan Deep		
1:75 000	A3	drawing no.	Hywind_2_Scotland_AFL_Export_Route_Corridor	01

CAUTION
Data in this map are collected from a variety of sources; any existing accuracy levels may be found. This map shows a description of the relative location of features.

