## marine scotland

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30<sup>th</sup> October 2015

Dear Mr Nakken,

APPLICATION FOR A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010 AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED) TO CONSTRUCT AND OPERATE 5 FLOATING WIND TURBINES IN THE BUCHAN DEEP, APPROXIMATELY 25 KM OFF THE COAST OF PETERHEAD, NORTH EAST SCOTLAND.

#### **Application**

I refer to the Application at (i) below made by Hywind (Scotland) Limited (Company Number 08709450) ("the Company"), submitted on 27<sup>th</sup> March 2015 to Marine Scotland ("MS"), the Licensing Authority on behalf of the Scottish Ministers, for:

i. A marine licence to be considered under Part 4 of the Marine (Scotland) Act 2010 ("the 2010 Act") and under Part 4 of the Marine and Coastal Access Act 2009 (as amended) ("the 2009 Act") by the Company to construct and operate the Hywind Scotland Pilot Park ("HSPP").

#### The Application

I refer to the application at (i) above made by the Company under the 2010 Act and the 2009 Act for the Hywind Scotland Pilot Park, comprising of 5 floating wind turbines situated in the North Sea, with a maximum generating capacity of up to 30 megawatts ("MW"), in an area known as the Buchan Deep, approximately 25 km off the coast of Peterhead, North East Scotland, just outside the 12 nautical miles ("nm") territorial water limit.

#### Consultation

In accordance with the statutory requirements provided under Section 26 of the Marine (Scotland) Act 2010, notice of the Application had to be published to bring the Application to the attention of persons likely to be interested in it. The Licensing Authority note that these requirements have been met. Under section 27 of the Act and regulations made under that section, consultation with the statutory consultation bodies has taken place.

Notifications were sent to the Aberdeenshire Council ("AC") as the nearest onshore Planning Authority, as well as to the Joint Nature Conservation Committee ("JNCC"), the Scottish Natural Heritage ("SNH"), the Scottish Environment Protection Agency ("SEPA"), the Maritime and Coastguard Agency ("MCA") and the Commissioners of the Northern Lighthouse Board ("NLB").

The Licensing Authority have fully and carefully considered the Application and accompanying documents and all relevant responses from consultees and third party representations that have been received.

## Representations and objections

No representations were received by the Licensing Authority during the course of the public consultation exercise. Objections were received from the Aberdeen International Airport ("AIA"), BP Exploration Operating Company Limited ("BP"), the Ministry of Defence ("MOD"), National Air Traffic Services (EnRoute) plc ("NERL"), the Royal Society for the Protection of Birds Scotland ("RSPB Scotland") and the Scottish Fishermen's Federation ("SFF"). Further discussion between the Company and AIA, BP, MOD, SFF and NERL resulted in those stakeholders withdrawing their objections subject to conditions and / or agreements being put in place to minimise the impact(s) of the Development. Objections are being maintained from the RSPB Scotland.

#### **Public Local Inquiry**

Under Section 28 of the Marine (Scotland) Act 2010 Scottish Ministers may cause an inquiry to be held in connection with their determination of an application for a marine licence.

Under Schedule 5, paragraph 4(2)(a) of the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) ("the EIA Regulations") the Scottish Ministers may, if they consider it appropriate to do so, instigate a local inquiry if a representation from a member of the public cannot be resolved in order to enable the EIA consent decision to be made.

The Scottish Ministers do not consider that it is appropriate to cause a public inquiry to be held. They are of the view that there are no significant issues which have not been adequately considered and that they have all the information required to make an informed decision without the need for a Public Local Inquiry.

#### The Licensing Authority's Considerations

#### Environmental matters

An Environmental Statement has been produced in accordance with The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) ("the 2007 Regulations").

The 2007 Regulations prohibit the Licensing Authority from granting a Licence unless it has taken into consideration the environmental information, as defined in those Regulations, and unless the applicable procedures regarding publicity and consultation laid down in those regulations have been followed. The Licensing Authority are satisfied that the Company has had due regard to these features.

The Licensing Authority have fully and carefully considered the Application and accompanying documents and all relevant responses from consultees. They have also considered the third party representations received. The Licensing Authority have taken account of the extent to which any environmental effects will be modified and mitigated by measures the Company has agreed to take, or will be required to take, under the conditions attached to the Licence. The Licensing Authority are satisfied that environmental issues can be appropriately addressed by way of mitigation, and that any impacts which remain are outweighed by the benefits which the Development will bring.

#### Impact on Commercial Fishing

The Scottish Fishermen's Federation ("SFF") had concerns over impacts on fishing and initially objected the Development on behalf of its nine member associations. SFF disputed the Company's Environmental Statement's estimation of the displacement suffered by the fleet, arguing this would be proportionally larger than estimated. SFF disagreed with the ES statement that fisheries would not be impacted negatively by the Development, and also with the ES statement that the area is not relevant to the fisheries due to recent average catches having been low, highlighting that the area could potentially become a huge resource for the fishing industry in the future. SFF emphasised the Development would imply a loss of access to 15 km² of fishing grounds in the area and stated this impact would need mitigation.

The SFF also raised concerns regarding the export cable, namely the fact it will be laid and unused for up to 18 months. SFF requested that the route and method of burial was agreed with the fishing industry in order to achieve minimum disruption.

To mitigate the impacts of the Development on commercial fishing, the Licensing Authority has included three conditions within the licence to address the Federation's concerns: the appointment of a suitable Fishery Liaison Officer ("FLO") by the Company during both cable laying and deployment / commissioning of turbines; the submission of a Cable Plan to be consulted on with SFF, in particular to review areas where the cable cannot be buried and to consult on options for other forms of cable protection; and the participation by the Company in a Fisheries Group (which one to be determined) with the aim of producing a Fisheries Management and Mitigation Strategy which will be approved by the Licensing Authority in consultation with the SFF. When considering the Fisheries Management and Mitigation Strategy, the Company will have to consider the National Marine Plan. In particular, Fisheries policies 2 and 3; the interaction with other users policy 6.26; and offshore wind and marine renewable energy - marine licensing policies set out in chapter 11. The Company must also take into consideration any other relevant guidance when developing the FMMS.

#### Economic and Renewable Energy Benefits

The 30 MW Hywind Scotland Pilot Park, in the Buchan Deep, approximately 25 km off the coast of Peterhead, will provide power equivalent to the needs of approximately 19,900 homes. This increase in the amount of renewable energy produced in Scotland is entirely consistent with the Scottish Government's policy on the promotion of renewable energy and its target for the equivalent of 100% of Scotland's electricity demand to be met from renewable sources by 2020.

The Scottish Ministers aim is to achieve a thriving renewables industry in Scotland. The focus being to enhance Scotland's manufacturing capacity, to develop new indigenous industries, particularly in rural areas, and to provide significant export opportunities. The Licensing Authority have considered material details of how this Development can contribute to local or national economic development priorities as stated in Scottish Planning Policy ("SPP") and are satisfied that the Development is not contrary to the provisions contained within SPP in relation to renewable energy production.

#### Landscape and Visual Impacts

No objections were raised in terms of the landscape and visual impacts of the Development. AC, the JNCC and SNH all agreed with the ES Seascape and Landscape Visual Impacts Assessment ("SLVIA") conclusion that the effects of the Development are non-significant, neither on its own, nor cumulatively with other developments on the east coast of Scotland,

be it on-shore or offshore. These three consultees considered that although the Development will introduce a new feature within the coastal and seascape character, which at times may appear as a prominent new focus given the right conditions of light and swell, the distance of the development from the nearest receptors, the relatively small scale of the Development and the character of the coastline limit the impact of the development.

#### Wildlife and Habitats

The Company submitted an HRA report along with their Application. From the information provided in this report, the SNCBs in their advice dated 3rd July 2015 identified LSE from the Development as follows:

- Herring gull (Buchan Ness to Collieston Coast SPA, collision risk);
- Northern gannet (Forth Islands SPA, collision risk);
- Black-legged kittiwake (Buchan ness to Collieston Coast SPA, Fowlsheugh SPA, collision risk);
- Common guillemot (Buchan Ness to Collieston Coast SPA, displacement);
- Razorbill (Fowlsheugh SPA, displacement);
- Atlantic puffin (Forth Islands SPA, displacement):
- Seabird assemblages; and
- Bottlenose dolphin (Moray Firth SAC).

Marine Scotland were therefore required to complete an AA against the sites' conservation objectives. The SNCBs recognised that the Development on its own would not result in adverse effect on site integrity for any of the above SPAs, however raised some concerns due to the in-combination effects, particularly with the consented Forth and Tay offshore wind farm developments. The completed AA used the most up to date evidence, including the recently published Marine Scotland commissioned BTO report on avoidance rates and concluded that the Development would not adversely affect any of the above European protected sites. The SNCBs agreed with the conclusions of the AA for all species / site combinations except puffin from Forth Islands SPA. MS-LOT consider that the best available evidence has been used in the AA and that the assessment has been precautionary. A full explanation of the issues and justification for decisions regarding site integrity is provided in the AA.

Scottish Ministers are currently considering advice received from the SNCBs on sites suitable for designation as SPAs and SACs. These sites are currently given "draft" status (dSPAs and dSACs). Once Ministers have agreed the case for the draft designations to be the subject of a public consultation, the proposals will be given the status of 'pSPA and pSAC' and will receive policy protection from that point forward until a decision on classification of the sites is made. This policy protection for proposed sites is provided by Scottish Planning Policy (paragraph 210), the UK Marine Policy Statement (paragraph 3.1.3) and the National Marine Plan for Scotland (paragraph 4.45).

If these sites become designated and LSE is identified, then it will be necessary to complete a further AA and, depending on the findings of the AA, either affirm, modify or revoke the Marine Licence.

In their email of 3<sup>rd</sup> September 2015 the SNCBs advised that there was the potential for connectivity of the Development with:

- Forth Bay Complex dSPA with respect to gannet, puffin and manx shearwater;
- Ythan Estuary dSPA (for the cable route) with respect to sandwich tern; and
- Moray Firth dSAC (for the cable route) with respect to harbour porpoise.

The SNCBs advised that they will not be in a position to provide further advice on potential impacts from the Hywind Development on the draft designations until the draft conservation objectives have been finalised following the consultation.

#### Other Considerations

The Licensing Authority has had full regard to the UK Marine Policy Statement when assessing the application. It is considered that the Development accords with the Statement.

## The Licensing Authority's Determination

Subject to the conditions set out in the Marine Licence (05515/15/0) the Licensing Authority grant a licence under Part 4 of the Marine (Scotland) Act 2010 and under Part 4 of the Marine and Coastal Access Act 2009 (as amended) for construction, operation and deposits of substances carried out in association with the Hywind Scotland Pilot Park, in the Buchan Deep, approximately 25 km off the coast of Peterhead, North East Scotland (as described in **Annex 1**).

The Licensing Authority direct that within 2 months of the date of this licence (and within 2 months of the Final Commissioning of the Development if there has been any variation on the original approved plan), the Company must provide to the Licensing Authority a detailed plan showing the site boundary and all WTG's and pipelines in a format compatible with the Scottish Government's Spatial Data Management Environment ("SDME"), along with appropriate metadata. The SDME is based around Oracle RDBMS and ESRI ArcSDE and all incoming data should be supplied in ESRI shapefile format. The SDME also contains a metadata recording system based on the ISO template within ESRI ArcCatalog (agreed standard used by the Scottish Government), all metadata should be provided in this format.

In order to ensure compatibility with Marine Scotland Interactive ("MSI"), the Company must provide the Licensing Authority with a summary of the Environmental Statement so as to maintain the online public register for Marine Scotland Licensing Operations Team ("MSLOT"). The project summary must be less than 300 words, provide a location coordinate in latitude and longitude decimal degrees for the centre of the project area and the outline coordinates in degrees decimal minutes for the agreement for lease area. A selection of the most pertinent figures used in the Environmental Statement should be provided as jpegs approximately 2 Mb in size.

In accordance with regulation 23 of the 2007 Regulations, the Licensing Authority considers it appropriate that the Company must publicise this determination in the same publications as where the original Application notices were placed. Copies of this public notice must be provided to the Licensing Authority by the Company.

In reaching their decision, the Licensing Authority have taken into account the environmental information submitted with the Application, including the Environmental Statement, the representations made by statutory consultative bodies and others, in accordance with the 2007 Regulations; the Application; further representations received, in the context of the expert advice provided by statutory consultees, and Scottish Government policy.

The Licensing Authority have considered all material considerations and have concluded that it is not appropriate for a public inquiry to be held before reaching their decision. In reaching their decision they have had regard to all relevant considerations and, subject to the conditions of this licence, are satisfied that it is appropriate for the Company to construct and operate the Development in the manner set out in the Application. The Licensing

Authority also consider that the Development is consistent with Government policy on the promotion of renewable energy.

Copies of this letter and the licence have been sent to all consultation bodies and persons who responded or made representations to the Application. This letter has also been published on the Scottish Government MS-LOT website.

The Licensing Authority's decision is final, subject to the right of any aggrieved person to apply to the Court of Session for judicial review and to the right of the applicant to appeal the decision under the terms of section 38 of the Act and regulations made thereunder. Judicial review is the mechanism by which the Court of Session supervises the exercise of administrative functions, including how the Licensing Authority exercise their statutory function to determine Applications for a Licence. The rules relating to the judicial review process can be found on the website of the Scottish Courts —

http://www.scotcourts.gov.uk/session/rules/print/rules/CHAP58.pdf. Your local Citizens' Advice Bureau or your solicitor will be able to advise you about the applicable procedures.

Yours sincerely

James McKie

Leader, Marine Scotland Licensing Operations Team A member of the staff of the Scottish Ministers

#### ANNEX 1 - DESCRIPTION OF THE DEVELOPMENT

The Company 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 Development 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 ("MSL") 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 Development 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 Company 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.

#### ANNEX 2 - CONDITIONS OF THE MARINE LICENCE

#### **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 subcontractors 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 preconstruction, 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 Licencing 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 subcontractors 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 ("DSLP") 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 ("DSLP")

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 DSLP, 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 DSLP 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;
- 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 DSLP, 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;
- 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;
- 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 POIS 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 Licencing 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.