

MARINE AND COASTAL ACCESS ACT (2009), PART 4 MARINE LICENSING

LICENCE TO CONSTRUCT, ALTER OR IMPROVE ANY WORKS AND DEPOSIT ANY SUBSTANCE OR OBJECT WITHIN THE UK MARINE LICENSING AREA

Licence Number: 06763/19/0

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

**Moray Offshore Windfarm (West) Limited
C/O Shepherd And Wedderburn LLP
Condor House
10 St. Paul's Churchyard
London
EC4M 8AL**

Under the Marine and Coastal Access Act 2009,

- 1) To construct, alter or improve any Works within the UK marine licensing area in or over the sea, or on or under the seabed,
- 2) To deposit any substance or object (except for dredge spoil) within the UK marine licensing area, either in the sea or on or under the seabed; and

as required in the execution of the Works (including construction, operation and maintenance) described in Part 2 of this licence. This licence is subject to the conditions detailed in Part 3 of this licence.

This licence remains in force from **14 June 2019** to **13 June 2044** or until the Works have been decommissioned in accordance with an approved Decommissioning Programme prior to this date and for which a separate marine licence is required.

Signed:

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Michael Bland

For and on behalf of the Licensing Authority

Date of issue: 14 June 2019

1. PART 1 – GENERAL

1.1 Interpretation

In this licence, unless otherwise stated, terms are as defined in sections 1, and 115 of the 2009 Act, and,

- 1) **"SEPA"** means the Scottish Environment Protection Agency;
- 2) **"CaP"** means Cable Plan;
- 3) **"CMS"** means Construction Method Statement;
- 4) **"Commencement of the Works"** means the date on which the first vessel arrives on the Site) to begin carrying on any Licensed Activities in connection with the construction of the Works;
- 5) **"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;
- 6) **"Contractor Reports"** means reports detailing that the name and address of any agents, contractors or subcontractors appointed to carry out any part, or all, of the Licensed Activities;
- 7) **"CoP"** means Construction Programme;
- 8) **"CTMP"** means Construction Traffic Management Plan;
- 9) **"Decommissioning of the Works"** means removal of the Works from the seabed, demolishing or dismantling the Works;
- 10) **"Decommissioning Programme"** means the programme for decommissioning the Works, to be submitted by the Licensee to the Licensing Authority under section 105(2) of the Energy Act 2004 (as amended);
- 11) **"DP"** means Decommissioning Programme;
- 12) **"DS"** means Design Statement;
- 13) **"DSL P"** means Development Specification and Layout Plan;
- 14) **"EMP"** means Environmental Management Plan;
- 15) **"ERCoP"** means Emergency Response Co-operation Plan;
- 16) **"F-Gas Regulation"** means Regulation No 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases;
- 17) **"Final Commissioning of the Works"** means the date on which the last wind turbine generator constructed forming the Works has supplied electricity on a commercial basis to the National Grid, or such earlier date as the Licensing Authority deems the Works to be complete;
- 18) **"FMMS"** means Fisheries Management Co-operation Plan;
- 19) **"HAT"** means Highest Astronomical Tide;
- 20) **"HRA"** means Habitats Regulations Appraisal;
- 21) **"IALA"** means International Association of Marine Aids to Navigation and Lighthouse Authorities;
- 22) **"IHO Order"** means International Hydrographic Organization Order;
- 23) **"Licensed Activities"** means any activity or activities listed in section 66 of the 2009 which is, or are authorised under this licence;
- 24) **"LMP"** means Lighting and Marking Plan;
- 25) **"MCA"** means Maritime and Coastguard Agency;
- 26) **"MEDIN"** means Marine Environmental Data and Information Network;
- 27) **"MGN"** means Marine Guidance Note;
- 28) **"MHWS"** means mean high water springs;
- 29) **"MMO"** means Marine Mammal Observer;
- 30) **"MOD"** means Ministry of Defence;
- 31) **"NLB"** means Northern Lighthouse Board;
- 32) **"NMP"** means the National Marine Plan;

- 33) **“Noise Registry”** means the marine noise registry developed by the Department for Environment, Food and Rural Affairs (“DEFRA”) and the Joint Nature Conservation Committee (“JNCC”) to record human activities in UK seas that produce loud low to medium frequency (10Hz-10kHz) impulsive noise;
- 34) **“OCNS list”** means the definitive ranked list of registered products held by the Offshore Chemical Notification Scheme, as assessed for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002 (as amended);
- 35) **“OMP”** means Operation and Maintenance Programme;
- 36) **“OSPAR”** means the Convention for the Protection of the Marine Environment of the North-East Atlantic;
- 37) **“PEMP”** means Project Environmental Monitoring Programme
- 38) **“PS”** means Piling Strategy;
- 39) **“RSPB Scotland”** means Royal Society for the Protection of Birds Scotland;
- 40) **“ScotMER”** means the Scottish Marine Energy Research Programme;
- 41) **“SFF”** means Scottish Fishermen’s Federation;
- 42) **“SMWWC”** means the Scottish Marine Wildlife Watching Code;
- 43) **“SNH”** means Scottish Natural Heritage;
- 44) **“TAR”** means Transportation Audit Report;
- 45) **“the 2009 Act”** means the Marine Coastal Access Act 2009;
- 46) **“the Application”** means the EIA Report, RIAA and supporting documents submitted by the Applicant on 5 July 2018 to construct and operate an offshore generating station and transmission works, it also includes the PVA Report submitted on 31 August 2018, the EIA Addendum Report submitted on 23 November 2018 and the GBBG Report submitted on 18 March 2019; **“CAA”** means Civil Aviation Authority;
- 47) **“the Licensee”** means Moray West having its registered office Conder House 5-10 St Paul’s Churchyard, London, EC4M 8AL at and registered in England having its registered company number as 11413110;
- 48) **“the Site”** means the total area extending to approximately 225km² as shown delineated in Figure 1 in Appendix 1 of this licence;
- 49) **“the Works”** means the as described in Part 2 of this licence or any part thereof;
- 50) **“TPC”** or **“TPV”** means Third Party Certification or Verification;
- 51) **“Transit Plan”** means a plan which sets out measures to be taken to avoid or reduce the impact of vessel movement on the local fishing industry and to promote a sustainable coexistence. It will include indicative transit routes for vessels operating in and around the Site and transiting to the site from relevant ports;
- 52) **“UKHO”** means United Kingdom Hydrographic Office;
- 53) **“Vessel Reports”** means reports detailing the operators, vessels and vehicles engaging in the Licensed Activities;
- 54) **“VMP”** means the Vessel Management Plan; and
- 55) **“WTG”** means Wind Turbine Generators.

All geographical co-ordinates contained within this licence are in latitude and longitude format World Geodetic, System 84.

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

Email: MS.MarineRenewables@gov.scot

1.3 Other authorisations and consents

The Licensee is deemed to have satisfied itself that there are no barriers or restrictions, legal or otherwise, to the carrying on of the Licensed Activities in connection with the Works. 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 72(1) 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 its provisions or for any such other reason that appears to be relevant to the Licensing Authority under section 71(2) or (3) of the 2009 Act.

Under section 71(7) of the 2009 Act, on an application made by the Licensee, the Licensing Authority may transfer this licence from the Licensee to another person.

Under the 2009 Act variations, suspensions, revocations and transfers of licences are subject to the procedures set out in section 30 of the 2009 Act.

1.5 Breach of requirement for, or conditions of, licence

Under section 85 of the 2009 Act, it is an offence to carry on 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 86 of the 2009 Act, it is a defence for a person charged with an offence under section 85(1) of the 2009 Act in relation to any activity to prove that:

- (a) 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, and
- (b) that the person took steps within a reasonable time to inform the Licensing Authority of the matters set out in section 86(2) of the 2009 Act.

1.7 Offences relating to information

Under section 85 of the 2009 Act, it is an offence for a person to make a statement which is false or misleading in a material way, 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 2009 Act or the provisions of this licence.

1.8 Appeals

Under Regulation 3(1) of the Marine Licensing Appeals (Scotland) Regulations 2011 a person who has applied for a marine licence may by summary application appeal to against a decision taken by the Licensing Authority under section 71(1)(b) or (c) or (5) of the Act.

2. PART 2 – PARTICULARS

2.1 Description of the Works

An offshore energy generating station at the Site, located in the Moray Firth, approximately 22.5km from Caithness Coastline as shown in Figure 1, comprised of either:

All as described in the Application.

1. No more than 85 three-bladed horizontal axis Wind Turbine Generators (“WTG”) each with:

- a. a maximum rotor tip height of 230 metres (measured from Highest Astronomical Tide (“HAT”));
- b. a maximum rotor diameter of 195 metres;
- c. a maximum hub height of 132.5 metres (measured from HAT);
- d. a minimum blade tip clearance of 35 metres (measured from HAT);
- e. blade width of up to 6 metres; and
- f. a minimum spacing of 1,050 metres crosswind and 1,200 metres downwind.

or

If the rotor tip height of the WTGs exceeds 230 metres (measured from HAT), no more than 72 WTGs each with:

- a. a maximum rotor tip height of 265 metres (measured from HAT);
- b. a maximum rotor diameter of 230 metres;
- c. a maximum hub height of 150 metres (measured from HAT);
- d. a minimum blade tip clearance of 35 metres (measured from HAT);
- e. blade width of up to 6 metres; and
- f. a minimum spacing of 1,050 metres crosswind and 1,200 metres downwind;

2. No more than 275km of inter-array cable;
3. Monitoring equipment, such as metocean buoys;
4. Up to 85 foundations and substructures and associated fixtures, fittings and protections;
5. Scour and inter-array cable protection;

The design of the WTG substructure will be chosen from the following options:

- i. Gravity base;
- ii. Monopile;
- iii. Jacket Foundation;
- iv. Suction Caisson.

2.2 Location of the Works

The Works are located at the Site being the area bounded by joining the following points:

58° 03.946' N	02° 54.796' W	58° 10.501' N	02° 55.757' W
58° 05.383' N	02° 52.068' W	58° 08.844' N	02° 59.165' W
58° 07.095' N	02° 50.479' W	58° 07.399' N	03° 03.675' W
58° 08.945' N	02° 49.990' W	58° 06.432' N	03° 08.146' W
58° 10.514' N	02° 50.442' W	58° 04.515' N	03° 10.381' W
58° 11.510' N	02° 51.175' W	58° 02.616' N	03° 13.067' W
58° 12.571' N	02° 52.451' W	58° 00.237' N	03° 12.986' W
58° 12.242' N	02° 53.185' W		

2.3 Descriptions of the construction materials used and Substances and Objects deposited

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

CONSTRUCTION MATERIALS

Quantities detailed below are indicative only.

Steel/Iron	400,000 tonnes
Plastics/Synthetic	5,000 tonnes
Sand	5,000,000 tonnes
Stone/Rock/Gravel/Concrete(<i>quantity includes the total scour protection for the array cables and jacket legs, made up of stone or rock or concrete</i>)	5,950,000 m ³
Cable, inter-array	319,000 m
Concrete bags/mattresses	112,000 m ³

Deposits

Moorings to support construction activities

3. PART 3 – CONDITIONS

3.1 General Conditions

3.1.1 Compliance with the Application and approved plans

The Licensee must at all times construct, operate and maintain the Works in accordance with this licence, the Application, the section 36 consent and the plans and programmes approved by the Licensing Authority.

Reason: *To ensure compliance with the marine licence, the Application and the approved plans and programmes.*

3.1.2 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 items 1 and 7 in section 66(1) of the 2009 Act whether or not this licence has been transferred to that person.

Reason: *To safeguard the obligations of the licence, in accordance with s.71(5) of the 2009 Act*

3.1.3 Vessels, vehicles, agents, contractors and sub-contractors

The Licensee must ensure that at least five days prior to its engagement in the Licensed Activities, the name and function of any vessel, agent, contractor or subcontractor appointed to engage in the Works and, where applicable, the master's name, vessel type, vessel IMO number and vessel owner or operating company are fully detailed in the Vessel Report. The Licensee must make the Vessel Reports and the Contractor Reports available on the Moray Offshore Windfarm (West) Limited webpage: <http://www.morayoffshore.com/moray-west/>

Any changes to the supplied details must be uploaded to the Vessel Report and the Contractor Report and the Licensing Authority must be notified, in writing, prior to any vessel, agent, contractor or sub-contractor which has not yet been notified to the Licensing Authority engaging in the Licensed Activities.

Only those vessels, agents, contractors or sub-contractors detailed in the Vessel Report are permitted to carry out any part of the Works.

The Licensee must satisfy itself that any masters of vessels or vehicle operators, agents, contractors or sub-contractors are aware of the extent of the Licensed Activities and the conditions of 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 of this licence.

The Licensee must give a copy of this licence, and any subsequent variations made to this licence in accordance with section 72 of the 2009 Act, to the masters of any vessels, vehicle operators, agents, contractors or sub-contractors permitted to engage in the Works and must ensure that the licence and any such variations are read and understood by those persons.

Reason: *To ensure all parties involved in the Works are aware of the licence and its conditions to reduce the risk of a breach of the licence, in accordance with s.85(1)(b) of the 2009 Act.*

3.1.4 Force Majeure

Should the Licensee or any of its 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 OSPAR, the Licensing Authority is obliged to immediately report force majeure incidents to the OSPAR Commission.

Reason: *To provide a defence for the Master to protect himself and his crew in bad weather conditions, in accordance with s.86 of the 2009 Act.*

3.1.5 Material alterations to the licence application

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

Reason: *To inform the Licensing Authority of any material changes to the licensed activities and allow consideration of any requirement for variation in accordance with s.72 (3) of the 2009 Act.*

3.1.6 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 its 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.

Reason: *To ensure that the Licensing Authority is kept informed of the progress of the Works, in accordance with s.71(3)(c) of the 2009 Act.*

3.1.7 Submission of reports and notifications to the Licensing Authority

The Licensee must submit all reports and notifications 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 or notifications 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 or notifications 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 its 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.

Such reports will include, but not be limited to a TAR, the Noise Registry, MMO records and all appropriate reports as stipulated with the PEMP.

Reason: *To ensure that all reports and notifications are submitted within a reasonable timescale after the licence is granted, in accordance with s.71(3)(c) of the 2009 Act.*

3.1.8 Chemical usage

The Licensee must seek prior written approval from the Licensing Authority for any chemicals in an open system which are to be utilised in the construction, operation and maintenance of the Works. Requests for approval must be submitted in writing to the Licensing Authority no later than one month prior to its intended use or such other period as agreed by the Licensing Authority. The Licensee must ensure that no chemicals are used in an open system without the prior written approval of the Licensing Authority.

If the proposed chemical is on the OCNS list, the approval request must include the chemical name, volume or quantity to be used, the OCNS list grouping or rank and the proposed frequency of use.

If the proposed chemical is not on the OCNS list, the approval request must include details of chemical to be used, including safety data sheet, depth and current at the Site, quantities or volumes and the proposed frequency of use.

The Licensee must notify the Licensing Authority of the types of chemicals to be used in a closed containment system prior to use.

The Licensee should take all practicable steps to avoid leakages from a closed containment system into the Scottish marine area. Any such leakages must be reported to the Licensing Authority as soon as practicable.

Reason: *To minimise the environmental impact in the event of a release through the use of authorised chemicals in the interest of protecting the environment, in accordance with s.71(2)(b) of the 2009 Act.*

3.1.9 Fluorinated greenhouse gases

The Licensee must ensure that all equipment to be utilised in the Works which contains fluorinated greenhouse gases (hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and other greenhouse gases that contain fluorine, listed in Annex I of Regulation No 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases ("F-Gas Regulation") or mixtures containing any of those substances) must take precautions to prevent the unintentional release ('leakage') of those gases. The Licensee must take all measures which are technically and economically feasible to minimise leakage of fluorinated greenhouse gases.

Where leakage of fluorinated greenhouse gases is detected, the Licensee must ensure that the equipment is repaired without undue delay.

The Licensee must ensure that all equipment to be utilised in the Works that contains fluorinated greenhouse gases in quantities of 5 tonnes of CO₂ equivalent or more and not contained in foams is checked for leakage in accordance with Article 4 of the F-Gas Regulation. Records of these checks must be kept in accordance with Article 6 of the F-Gas Regulation. These records must be submitted to the Licensing Authority annually and immediately in the event of discovery of leakage.

Where the equipment is subject to checks for leakage under Article 4(1) of the F-Gas Regulation and leakage in the equipment has been repaired, the Licensee must ensure that the equipment is checked by a suitably certified person within one calendar month after the repair to verify that the repair has been effective. In such event, the Licensing Authority must be informed of the date of discovery, date of repair and date of inspection.

Reason: To ensure compliance of the Works with the F-Gas Regulation and the Fluorinated Greenhouse Gases Regulations 2015, in accordance with s.71(2)(b) of the 2009 Act.

3.1.10 Environmental protection

The Licensee must ensure that all reasonable, appropriate and practicable steps are taken at all times to avoid or minimise any damage to the Scottish marine area caused as a result of the undertaking of the Licensed Activities.

The Licensee must ensure that all personnel adhere to the SMWWC where appropriate during all construction, operation and maintenance activities authorised under this licence.

The Licensee must ensure that any debris or waste material placed below MHWS level during the construction of the Works is removed from the Site, unless agreed otherwise by the Licensing Authority, as soon as is reasonably practicable, for disposal at a location above the MHWS level, approved by SEPA or such other relevant authority if disposal is to take place outwith Scotland.

The Licensee must ensure that, where practicable, all substances and objects deposited and all construction materials used during 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 construction, operation and maintenance of 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 the Site need not be removed from the seabed.

Reason: To ensure environmental impacts are minimised, in accordance with s.71(2)(b) of the 2009 Act.

3.1.11 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 person authorised by the Licensing Authority 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 vessels permitted to engage in the Works.

Reason: *To ensure the licence is available for the purpose of inspection, in accordance with s.71(2)(b) of the 2009 Act.*

3.1.12 Inspection of the Works

Any persons authorised by the Licensing Authority must be permitted to inspect the Works. 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 Works. The licensee shall ensure that the works are maintained at all times in good repair.

Reason: *To ensure access to the Works for the purpose of inspection, in accordance with 71(2)(b) of the 2009 Act.*

3.1.13 Emergencies

If governmental assistance is required (including UK governmental assistance or the assistance of any UK devolved government) 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.

Reason: *To ensure Licensee is aware of financial liabilities, in accordance with s.71(2)(b) of the 2009 Act.*

3.2 Conditions specific to the Works

3.2.1 Conditions applicable to all phases of the Works

3.2.1.1 Incident Reporting

In the event of any breach of health and safety or environmental obligations relating to the Works during the period of this Licence, the Licensee must provide written notification of the nature and timing of the incident to the Licensing Authority within 24 hours of the incident occurring. Confirmation of remedial measures taken and/or to be taken to rectify the breach must be provided, in writing, to the Licensing Authority within a period of time to be agreed by the Licensing Authority.

Reason: *To keep the Licensing Authority informed of any such incidents which may be in the public interest, in accordance with s.71(3)(c) of the 2009 Act.*

3.2.1.2 Bunding and storage facilities

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

Reason: *To ensure pollution prevention is undertaken, in accordance with 71(2)(b) of the 2009 Act.*

3.2.1.3 Decommissioning

There must be no Commencement of the Works unless a DP has been submitted to and approved in writing by the Licensing Authority. Such approval may only be granted following consultation by the Licensing Authority with Scottish Environmental Protection Agency ("SEPA") and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.

The DP must outline measures for the decommissioning of the Works, proposals for the removal of the Works, the management and timing of the works and, environmental management provisions.

The Works must be decommissioned in accordance with the approved DP, unless otherwise agreed in writing in advance with the Licensing Authority.

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

Reason: *To ensure that decommissioning is carried out according to the approved Decommissioning Programme under an appropriate licence, in accordance with s.71(3)(d) of the 2009 Act.*

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 one calendar month before the Commencement of the Works, notify the Licensing Authority, in writing, of the Commencement of the Works authorised under this licence.

Reason: *To inform the Licensing Authority of the commencement date of the Works, in accordance with s.71(3)(c) of the 2009 Act.*

3.2.2.2 Charting requirements

The Licensee must, prior to the Commencement of the Works, provide the positions and maximum heights of any WTG and construction equipment to the UKHO, for nautical charting purposes, and to the Defence Geographic Centre, for aviation purposes.

Reason: *To reduce the navigational risk to other legitimate users of the sea, in accordance with s.71(2)(b) of the 2009 Act.*

3.2.2.3 Monitoring of Marine Mammals

Prior to the Commencement of the Works, the Licensee must appoint an MMO. When appointed, the MMO must, as a minimum, maintain a record of any sightings of marine mammals and maintain a record of the action taken to avoid any disturbance being caused to marine mammals during noisy activities. The Licensee must provide the Licensing Authority with the MMO records no later than six months following Commencement of the Works, and thenceforth at such other periods as agreed with the Licensing Authority.

Reason: *To ensure environmental impacts are minimised, in accordance with s.71(2)(b) of the 2009 Act.*

3.2.2.4 Noise Registry

The Licensee must complete and submit a proposed activity form in the online Noise Registry for all aspects of the Works that will produce loud, low to medium frequency (10Hz-10kHz) impulsive noise no later than seven days prior to Commencement of the Works. If any aspects of the Works differ from the proposed activity form in the online Noise Registry, the Licensee must complete and submit a new proposed activity form no later than seven days prior to Commencement of the Works.

Reason: *To ensure compliance with reporting requirements on marine noise, in accordance s.71(3)(c) of the 2009 Act.*

3.2.2.5 Third Party Certification or Verification

The Licensee must no later than three calendar months (or such other period as agreed with the Licensing Authority) prior to the Commencement of the Works, provide the Licensing Authority with TPC or TPV (or a suitable alternative as agreed in writing with the Licensing Authority) for the lifespan of the Works. Commencement of the Works cannot take place until such approval is granted.

Reason: *To provide independent certification or verification of the technology, materials or equipment, in accordance with s.71(2)(b) of the 2009 Act.*

3.2.2.6 Construction Programme

The Licensee must, no later than six months prior to the Commencement of the Works, submit a CoP, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, Aberdeenshire Council, SFF and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

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;
- d) Contingency planning for poor weather or other unforeseen delays; and
- e) The scheduled date for Final Commissioning of the Works.

The final CoP must be sent to Aberdeenshire Council, MCA, NLB, Moray Council and the Highland Council for information only.

Reason: To confirm the timing and programming of construction in accordance with s.71(3)(c) of the 2009 Act.

3.2.2.7 Construction Method Statement

The Licensee must, no later than six months prior to the Commencement of the Works, submit a CMS, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, SEPA, MCA, NLB, RSPB Scotland, SFF, Aberdeenshire Council and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

The CMS must include, but not be limited to:

- a. Details of the commencement dates, duration and phasing for the key elements of construction, the working areas, the construction procedures and good working practices for installing the Works.
- b. 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.
- c. Details of how the construction related mitigation steps proposed in the Application are to be delivered.

The CMS must adhere to the construction methods assessed in the Application. The CMS also must, so far as is reasonably practicable, be consistent with a DS, the EMP, VMP, an NSP, the PS, the CaP and the LMP.

The final CMS must be sent to Moray Council and the Highland Council and NLB for information only.

Reason: To ensure the appropriate construction management of the Works, taking into account mitigation measures to protect the environment and other users of the marine area in accordance with s.71(3)(c) of the 2009 Act.

3.2.2.8 Piling Strategy

The Licensee must, no later than six months prior to the Commencement of the Works, submit a PS, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH and any such other advisors as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

The PS must include, but not be limited to:

- a. Details of expected noise levels from pile-drilling/driving in order to inform point d below;
- b. Full details of the proposed method and anticipated duration of piling to be carried out at all locations;
- c. Details of soft-start piling procedures and anticipated maximum piling energy required at each pile location; and
- d. Details of any mitigation such as Passive Acoustic Monitoring, MMO, use of Acoustic Deterrent Devices and monitoring to be employed during pile-driving, as agreed by the Licensing Authority.

The PS must be in accordance with the Application and must also reflect any monitoring or data collection carried out after submission of the Application.

The PS must demonstrate how the exposure to and/or the effects of underwater noise have been mitigated in respect to harbour porpoise, minke whale, bottlenose dolphin, harbour seal, grey seal, Atlantic salmon and sea trout.

The PS must, so far as is reasonably practicable, be consistent with the EMP, the PEMP and the CMS.

Reason: *To mitigate the underwater noise impacts arising from piling activity in accordance s.71(3)(c) of the 2009 Act.*

3.2.2.9 Development Specification and Layout Plan

The Licensee must, no later than six months prior to the Commencement of the Works, submit a DSLP, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, RYA, MCA, NLB, MOD, CAA, SFF, Aberdeenshire Council, Moray Council, the Highland Council, JRC and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

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

- a) A plan showing the location of each individual WTG (subject to any required micro-siting), including information on WTG spacing, WTG identification/numbering, seabed conditions, bathymetry, confirmed foundation type for each WTG and any key constraints recorded on the site;
- b) A list of latitude and longitude co-ordinates accurate to three decimal places of minutes of arc for each WTG. This should also be provided as a GIS shape file using WGS84 format;
- c) A table or diagram of each WTG dimensions including - height to blade tip LAT to the highest point;
- d) The finishes for each WTG; and
- e) The length and proposed arrangements on the seabed of all inter-connector and export cables.

Reason: *To confirm the final Works specification and layout in accordance with s.71(3)(a) of the 2009 Act.*

3.2.2.10 Design Statement

The Licensee must, no later than six months prior to the Commencement of the Works, submit a DS, in writing, to the Licensing Authority.

The DS, which must be signed off by at least one qualified landscape architect, as instructed by the Applicant prior to submission to the Licensing Authority, must include representative wind farm visualisations from key viewpoints as agreed with the Licensing Authority, based upon the final DSLP as approved by the Licensing Authority as updated or amended.

The Licensee must provide the DS, for information only, to Aberdeenshire Council, Moray Council, the Highland Council, SNH, MCA and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted

Reason: *To ensure that the Works is carried out in accordance with the approved details, and to inform interested parties of the final wind farm scheme proposed to be built in accordance with s.71(3)(c) of the 2009 Act.*

3.2.2.11 Environmental Management Plan

The Licensee must, no later than six months prior to the Commencement of the Works, submit an EMP, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

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

- a. All construction as required to be undertaken before the Completion of the Works; and
- b. The operational lifespan of the Works from the Completion of the Works until the cessation of electricity generation.

The EMP must be in accordance with the Application insofar as it relates to environmental management measures. The EMP must set out the roles, responsibilities and chain of command for the company 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 during construction:

- a. Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, and include the relevant parts of the CMS (refer to condition 3.2.2.8);
- b. Marine Pollution Contingency Plan;
- c. Management measures to prevent the introduction of invasive non-native marine species;
- d. A site waste management plan (dealing with all aspects of waste produced during the construction period), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment. Wherever possible the waste hierarchy of reduce, reuse and recycle should be encouraged; and
- e. The reporting mechanisms that will be used to provide the Licensing Authority and relevant stakeholders with regular updates on construction activity, including any

environmental issues that have been encountered and how these have been addressed.

The EMP must be regularly reviewed by the Licensee and the Licensing Authority or MFRAG, at intervals agreed by the Licensing Authority. Reviews must include, but not be limited to, the reviews of updated information on construction methods and operations of the Works and updated working practices.

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

Reason: *To ensure that all construction and operation activities are carried out in a manner that minimises the impact on the environment, and that mitigation measures contained in the Application, or as otherwise agreed, are fully implemented in accordance with s.71(3)(a) and (c) of the 2009 Act.*

3.2.2.12 Vessel Management Plan

The Licensee must, no later than six months prior to the Commencement of the Works, submit a VMP, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, MCA, RYA, SFF and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

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

- a. The number, types and specification of vessels required;
- b. The manner in which vessel management will be coordinated, particularly during construction but also during operation;
- c. Location of working port(s), the routes of passage, the frequency with which vessels will be required to transit between port(s) and the site and indicative vessel transit corridors proposed to be used during construction and operation of the Works; and
- d. A fishing gear Transit Notice. The Transit Notice must lay out guidelines for vessels operating in and around the Site and transiting into the Site from relevant ports.

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 EMP, the PEMP, the NSP, and an LMP.

The final VMP must be sent to NLB for information only.

Reason: *To mitigate the navigational risk to other legitimate users of the sea in accordance with s.71(3) (a) and (c) of the 2009 Act.*

3.2.2.13 Operation and Maintenance Programme

The Licensee must, no later than three months prior to the Commissioning of the first WTG, submit an Operation and Maintenance Programme ("OMP"), in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, Aberdeenshire Council 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 operations and the maintenance of the WTG substructures, and inter-array cable network . 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.

The final OMP must be sent to MCA and the Highland Council for information only.

Reason: *To safeguard environmental interests during operation and maintenance of the offshore generating station in accordance with s.71(2)(b) of the 2009 Act.*

3.2.2.14 Navigational Safety Plan

The Licensee must, no later than six months prior to the Commencement of the Works, submit a NSP in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with MCA, NLB, RYA, SFF and any other navigational advisors or organisations as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

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

- a) Navigational safety measures;
- b) Construction exclusion zones;
- c) Notice(s) to mariners and radio navigation warnings;
- d) Anchoring areas;
- e) Temporary construction lighting and marking; and
- f) 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 MGN 543, and its annexes that may be appropriate to the Works, or any other relevant document which may supersede this guidance prior to approval of the NSP.

Reason: *To mitigate the navigational risk to other legitimate users of the sea in accordance with s.71(3)(a) and (c) of the 2009 Act*

3.2.2.15 Emergency Response Co-operation Plan

The Licensee must, no later than six months prior to the Commencement of the Works, submit an ERCoP for the construction, operation, maintenance and decommissioning phases of the Works in writing, to the Licensing Authority for its written approval.

Such approval may only be granted following consultation by the Licensing Authority with the MCA and any other navigational advisors or organisations as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

The ERCoP should follow the template and guidance as found on the MCA website. The ERCoP must be developed in discussion with the MCA.

The final ERCoP must be sent to NLB for information only.

Reason: *For emergency response planning for the Works and requirements for search and rescue helicopter operations in and around the Works in accordance with s.71(3)(a) of the 2009 Act.*

3.2.2.16 Cable Plan

The Licensee must, no later than six months prior to the Commencement of the Works, submit a CaP, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, MCA, SFF and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

The CaP must be in accordance with the Application.

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

- a. The vessel types, location, duration and cable laying techniques for the inter array cables;
- b. The results of monitoring or data collection work (including geophysical, geotechnical and benthic surveys) which will help inform cable routing;
- c. Technical specification of inter array cables, including a desk based assessment of attenuation of electro-magnetic field strengths and shielding;
- d. A burial risk assessment to ascertain burial depths and where necessary alternative protection measures;
- e. Methodologies for surveys (e.g. over trawl) of the inter array cables through the operational life of the wind farm where mechanical protection of cables laid on the sea bed is deployed; and
- f. Methodologies for inter array cable inspection with measures to address and report to the Licensing Authority any exposure of inter array cables.

Any licensed cable protection must ensure existing and future safe navigation is not compromised. The Licensing Authority will accept a maximum of 5% reduction in surrounding depth referenced to Chart Datum. Any greater reduction in depth must be agreed in writing by the Licensing Authority.

Reason: To ensure all environmental and navigational issues are considered for the location and construction of the inter array cables in accordance with s.71(3)9a) and (c) of the 2009 Act.

3.2.2.17 Lighting and Marking Plan

The Licensee must, no later than six months prior to the Commencement of the Works, submit a Lighting and Marking Plan ("LMP"), in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, MCA, NLB, CAA, MOD, RYA, Aberdeenshire Council, the Highland Council, Moray Council and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

The LMP must provide that the Works be lit and marked in accordance with the current CAA and MOD 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 this guidance prior to the approval of the LMP. The LMP must also detail the navigational lighting requirements detailed in the International Association of Marine Aids to Navigation and Lighthouse Authorities ("IALA") Recommendation O-139 or any other documents that may supersede this guidance prior to approval of the LMP.

Reason: To ensure navigational safety and the safe marking and lighting of the Works and mitigate the navigational risk to other legitimate users of the sea in accordance with s.71(3)(a) of the 2009 Act.

3.2.2.18 Navigation and Charting

The Licensee must, no later than one calendar month prior to Commencement of the Works, notify the UKHO of the proposed works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications through the national Notice to Mariners system.

The Licensee must, no later than one calendar month prior to Commencement of the Works, ensure that local mariner's organisations and local fishermen's organisations and HM Coastguard are made fully aware of the Works through local Notice to Mariners or by any other appropriate means.

The Licensee must ensure that details of the Licensed Activities are promulgated in the Kingfisher Fortnightly Bulletin, no later than one calendar month prior to the Commencement of the Works to inform the commercial fishing industry of the vessel routes and the timing and location of the construction activities.

The Licensee must, no later than eight weeks prior to the 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.

Reason: To reduce the navigational risk to other legitimate users of the sea, in accordance s.71(2)(b) of the 2009 Act.

3.2.2.19 Project Environmental Monitoring Programme

The Licensee must, no later than six months prior to the Commencement of the Works, submit a PEMP, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, SFF, the Highland Council and any other environmental advisors or organisations as required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted. 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.

The Licensing Authority must approve all initial methodologies for the above monitoring, in writing and, where appropriate, in consultation with the Highland Council for the socio-economic receptor and MFRAG.

Monitoring must be done in such a way so 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. In the event that further potential adverse environmental effects are identified, for which no predictions were made in the Application, the Licensing Authority may require the Licensee to undertake additional monitoring.

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

- a) Pre-construction, construction and post-construction (if considered appropriate by the Licensing Authority) monitoring or data collection as relevant in terms of the Application, and any subsequent monitoring or data collection for impacts on the following receptors:
 1. Birds, including the pre-construction monitoring of the great black-backed gull of the East Caithness SPA;
 2. Marine Mammals;
 3. Commercial Fisheries;
 4. Socio-economic; and
 5. Benthic communities.
- b) The participation by the Licensee to contribute to data collection or monitoring of wider strategic relevance, identified and agreed by the Licensing Authority.

Due consideration must be given to the ScotMER programme, or any successor programme formed to facilitate these research interests.

Any pre-consent monitoring or data collection carried out by the Licensee to address any of the above issues may be used in part to discharge this condition subject to the written approval of the Licensing Authority.

The PEMP is a live document which will be regularly reviewed by the Licensing Authority, at timescales to be determined by them to identify the appropriateness of on-going monitoring. Following such reviews, the Licensing Authority may, in consultation with the MFRAG require the Licensee to amend the PEMP and submit such an amended PEMP, in writing, to the Licensing Authority, for its written approval. Such approval may only be granted following consultation with the MFRAG and any other environmental, or such other advisors as may be required at the discretion of the Licensing Authority.

The Licensee must submit written reports and associated raw and processed data of such monitoring or data collection to the Licensing Authority at timescales to be determined by them. Consideration should be given to data storage, analysis and reporting and be to MEDIN standards.

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 its discretion.

The Licensing Authority may agree, in writing, that monitoring may be reduced or ceased before the end of the lifespan of the Works.

Reason: To ensure that appropriate and effective monitoring of the impacts of the Works is undertaken in accordance with s.71(3)(a) and (c) of the 2009 Act.

3.2.2.20 Regional Advisory Group

The Licensee must participate in the Moray Firth Regional Advisory Group (“MFRAG”) or any successor group, established by the Licensing Authority for the purpose of advising the Licensing Authority on research, monitoring and mitigation programmes for, but not limited to, ornithology, marine mammals, and commercial fish. The extent and nature of the Licensee’s participation in the Regional Advisory Group is to be agreed by the Licensing Authority.

Reason: *To ensure effective environmental monitoring of the impacts of the Works is undertaken, in accordance with s71(3)(c) of the 2009 Act.*

3.2.2.21 Fisheries Management and Mitigation Strategy

The Licensee must no later than six months prior to the Commencement of the Works, submit a FMMS, in writing, to the Licensing Authority for its written approval, in consultation with SFF and other fisheries representatives. Commencement of the Works cannot take place until such approval is granted. The FMMS must be defined and finalised in consultation with the MFCSWG.

In order to inform the production of the FMMS, the Licensee must monitor or collect data as relevant and agreed with Licensing Authority.

The FMMS must include a Transit Plan, which must lay out guidelines to address potential interactions with fishing activity, for vessels operating in and around the Works and transiting to the Works.

As part of any finalised FMMS, the Licensee must produce and implement a mitigation strategy for each commercial fishery that can prove to the Licensing Authority that they would be adversely affected by the Works. The Licensee any contractors, or sub-contractors working for the Licensee must implement the mitigation measures committed to be carried out by the Licensee within the FMMS. The Licensee must participate in and remain a member of the MFCSWG or any successor group formed to facilitate commercial fisheries dialogue.

Reason: *To mitigate the impact on commercial fishermen in accordance with s.71(3)(c) of the 2009 Act.*

3.2.2.22 Environmental Clerk of Works

Prior to the Commencement of the Works, the Licensee must at its own expense, and with the approval of the Licensing Authority in consultation with SNH, appoint an independent ECoW. Commencement of the Works cannot take place until such approval is granted. The ECoW must be appointed in time to review and approve the draft version of the first plan or programme submitted under this consent to Licensing Authority, in sufficient time for any pre-construction monitoring requirements, and remain in post until agreed by the Licensing Authority. The terms of appointment must also be approved by the Licensing Authority in consultation with SNH.

The terms of the appointment must include, but not be limited to:

- a) Quality assurance of final draft versions of all plans and programmes required under this consent;
- b) Responsible for the monitoring and reporting of compliance with the consent conditions and the environmental mitigation measures for all wind farm infrastructure;
- c) Provision of on-going advice and guidance to the Licensee in relation to achieving compliance with consent conditions, including but not limited to the conditions relating to and the implementation of the CMS, the EMP, the PEMP, the PS, the CaP and the VMP;
- d) Provision of reports on point b & c above to the Licensing Authority at timescales to be determined by the Licensing Authority;
- e) Induction and toolbox talks to onsite construction teams on environmental policy and procedures, including temporary stops and keeping a record of these;

- f) Monitoring that the Works are being constructed in accordance with the plans and this consent, the Application and in compliance with all relevant regulations and legislation;
- g) Reviewing and reporting incidents/near misses and reporting any changes in procedures as a result to the Licensing Authority; and
- h) Agreement of a communication strategy with the Licensing Authority.

Reason: *To ensure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Works in accordance with s.71(2)(b) and (c) of the 2009 Act.*

3.2.2.23 Fisheries Liaison Officer

Prior to the Commencement of the Works, a FLO, must be appointed by the Licensee and approved, in writing, by the Licensing Authority (following consultation with SFF and the MFCFWG). Commencement of the Works cannot take place until such approval is granted. The FLO must be appointed by the Licensee for the period from Commencement of the Works until the Final Commissioning of the Works. The identity and credentials of the FLO must be included in the EMP. 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 overall Works and any amendments to the CMS and site environmental procedures;
- b) The 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.

Reason: *To facilitate engagement with the commercial fishing industry in accordance with s.71 (3)(a) and (c) of the 2009 Act.*

3.2.2.24 Protocol for Archaeological Discoveries

The Licensee must, no later than six months prior to the Commencement of the Works, submit a PAD and a WSI 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 its written approval.

Such approval may be given only following consultation by the Licensing Authority with HES and any such advisors as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted. The Reporting Protocol must be implemented in full, at all times, by the Licensee.

The final PAD and WSI must be sent to Aberdeenshire Council for information only.

Reason: *To ensure any discovery of archaeological interest is properly and correctly reported in accordance with s. 71(3)(a) of the 2009 Act.*

3.2.2.25 Construction Traffic Management Plan

In the event that major offshore components require onshore abnormal load transport, the Licensee must, no later than six months prior to the Commencement of the Works, submit a CTMP in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with TS and any such other advisors as may be required at the discretion of the Licensing Authority. Commencement of the Works cannot take place until such approval is granted.

The CTMP must include:

- a) A mitigation strategy for the abnormal loads on the trunk road network including any accommodation measures required, incorporating the removal of street furniture, junction widening, or traffic management of road based traffic and transportation associated with the construction of the Works. All construction traffic associated with the Works must conform to the approved CTMP; and
- b) Any additional signing or temporary traffic control measures deemed necessary due to the size or length of loads being delivered as a result of the Works.

Reason: *To maintain the free flow and safety of the trunk road network in accordance with s.71(3)(a) of the 2009 Act.*

3.2.2.26 Aviation Radar

The Licensee must, prior to the Commencement of the Works, submit an Air Traffic Control Radar Mitigation Scheme ("ATC Scheme"), in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation on the ATC Scheme with the Ministry of Defence ("MOD"). Commencement of the Works cannot take place until such approval is granted.

The ATC Scheme is a scheme designed to mitigate the impact of the Works upon the operation of the Primary Surveillance Radar at RAF Lossiemouth ("the Radar") and the air traffic control operations of the MOD, which is reliant upon the Radar. The approved ATC Scheme must be in place for the operational life of the Works provided the Radar remains in operation.

No WTGs forming part of the Works may become operational, unless and until all those measures required by the approved ATC Scheme to be implemented prior to the operation of the turbines, have been implemented, and the Licensing Authority have confirmed this in writing. The Works must thereafter be operated fully in accordance with the approved ATC Scheme.

Reason: *To mitigate the adverse impacts of the Works on the Air Traffic Control Radar*

3.2.2.27 MOD Notification

The Licensee must notify MOD, at least 14 days prior to the Commencement of the Works, in writing of the following information:

- a) the earliest date of the Commencement of the Works;
- b) the earliest date any WTGs are brought into use;
- c) the maximum height of any construction equipment 50 metres or greater in height above mean sea level, to be used; and
- d) the maximum heights of any WTG, offshore platforms or other, temporary or permanent, offshore structures 50 metres or greater in height, above mean sea level, to be deployed or constructed.

Reason: *To mitigate the aviation risks in accordance with s.71(2)(b) of the 2009 Act.*

3.2.3 During the Construction of the Works

3.2.3.1 Transportation Audit Report

The Licensee must submit to the Licensing Authority a detailed TAR for each calendar month during the construction phase of the Works. The TAR must be submitted within 14 days of the end of each calendar month.

The TAR must include the nature and quantity of all substances and objects deposited and materials used in construction (as described in Part 2 of this licence) in that calendar month. Alterations and updates can be made in the following month's TAR. Where appropriate, nil returns must be provided.

If the Licensee becomes aware of any substances, objects or materials on the TAR that are missing, or becomes aware that an accidental deposit has occurred, the Licensee must notify the Licensing Authority as soon as practicable. The Licensee must undertake such survey as directed by the Licensing Authority to locate the substances, objects and materials. If the Licensing Authority is of the view that any accidental deposits have occurred and should be removed, then the materials must be removed by the Licensee as soon as is practicable and at the Licensee's expense.

Reason: To confirm that the deposits made were in accordance with the application documentation, in accordance with s.71(3)(c) of the 2009 Act and that any accidental deposits are recovered or charted appropriately in accordance with s.71(3)(c) of the 2009 Act.

3.2.3.2 Navigational Safety

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

The Licensee must ensure that progress of the Works is promulgated regularly in the Kingfisher Fortnightly Bulletin to inform the commercial fishing industry of the vessel routes and the timing and location of the construction activities.

The Licensee must in the case of damage to, or destruction or decay of, the Works, notify the Licensing Authority, in writing, as soon as reasonably practicable, following such damage, destruction or decay. The Licensee must carry out any remedial action as required by the Licensing Authority, following consultation with the MCA, the NLB or any such advisers as required by the Licensing Authority.

The Licensee must ensure that any vessels permitted to engage in the construction of the Works are marked in accordance with the International Rules for the Prevention of Collisions at Sea whilst under way, and in accordance with the UK Standard Marking Schedule for Offshore Installations if the vessel is secured to the seabed.

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 navigable depth is not altered by more than 5% referenced to Chart Datum unless otherwise agreed, in writing, with the Licensing Authority in consultation with the MCA and NLB.

Reason: *To reduce the navigational risk to other legitimate users of the sea, in accordance with s.71(2)(b) of the 2009 Act.*

3.2.3.3 Markings, lighting and signals of the Works

The Licensee must ensure that the Works are marked and lit in accordance with an approved LMP at all times. The LMP and any subsequent amendments must be approved by the Licensing Authority following consultation with SNH, MCA, NLB, CAA, MOD, RYA, Aberdeenshire Council, The Highland Council, Moray Council. The display of unauthorised marks or lights is prohibited.

The Licensee must ensure that the Works are marked and lit in accordance with IALA Recommendation O-139.

Unless otherwise approved by the Licensing Authority, the LMP must include but not be limited to:

- a. the lighting requirements of the MCA, NLB, CAA and MOD;
- b. that the boundary WTG, where they are more than 900m apart, must be lit with a single 2000 candela, red aviation light, flashing Morse 'W' in unison with all other boundary WTG;
- c. that all other WTG must be fitted with a fixed single red 200 candela aviation light for Search and Rescue ("SAR") purposes; and
- d. that all WTG aviation lights should be compatible with night vision imaging systems.

The Licensee must ensure that during the construction phase the Site boundary is marked by a mixture of lit Cardinal Mark and lit Special Mark buoys, to be agreed with NLB. These buoys must be a minimum of 3 metres in diameter at the waterline, have a focal plane of at least 3 metres above the waterline and be fitted with a topmark and radar reflector. The light range on these buoys must be 5 Nautical Miles. AIS Aids to Navigation (AtoN) must be fitted to Cardinal Marks.

Reason: *To ensure safe appropriate marking and lighting of the offshore Works, in accordance with s.71(2)(b) of the 2009 Act.*

3.2.4 Conditions upon Completion of the Works

3.2.4.1 Date of Completion of the Works

The Licensee must, no later than one calendar month following the Completion of the Works, notify the Licensing Authority, in writing, of the date of Completion of the Works.

Reason: To inform the Licensing Authority of the Completion of the Works, in accordance with s.71(3)(c) of the 2009 Act.

3.2.4.2 Nature and quantity of substances and objects deposited and materials used in construction

The Licensee must, no later than one calendar 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, objects placed below MHWS and all materials used in construction within the Scottish marine area under the authority of this licence.

Reason: To confirm that the deposits made and materials used were in accordance with the Application and in accordance with s.71(3)(d) of the 2009 Act.

3.2.4.3 Noise Registry Close Out

The Licensee must complete and submit a close-out report for all aspects of the Works that produced loud, low to medium frequency (10Hz-10kHz) impulsive noise in the online Noise Registry no later than 12 weeks from the Completion of the Works.

Reason: To ensure compliance with reporting requirements on marine noise, in accordance with s.71(3)(c) of the 2009 Act.

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 admiralty charts and publications through the national Notice to Mariners system.

The Licensee must, within one month of the Completion of the Works, provide the “as-built” positions and maximum heights of all WTG, along with any sub-sea infrastructure, to the UKHO for aviation and nautical charting purposes.

The Licensee must, as per the requirements of the MCA's MGN 543 and supplementary updates, complete post-installation hydrographic surveys of the Site or subsections thereof, to the IHO Order 1a survey standard. On completion of these surveys, the data and a corresponding report of survey must be supplied to the UKHO, with notification to the MCA hydrography manager and the Licensing Authority.

The Licensee must ensure that local mariners, fishermen's organisations and HM Coastguard, in this case the National Maritime Coastguard 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 commercial fishing industry.

The Licensee must, where any damage, destruction or decay is caused to the Works, notify the Licensing Authority, in writing, of such damage, destruction or decay as soon as reasonably practicable following such damage, destruction or decay. The Licensee must carry

out any remedial action which the Licensing Authority advises the Licensee, in writing, as requiring to be taken, which may include a requirement to display aids to navigation, following consultation by the Licensing Authority with the MCA, the NLB or any such advisers as required.

The Licensee must ensure that the WTG are actively monitored during the operation and maintenance phases. The Licensee must ensure that a contingency plan is in place to respond to any reported catastrophic failures which may result in the WTG, or part(s) thereof, breaking loose and becoming a buoyant hazard. This contingency plan should include the transmission of local radio navigation warnings.

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.

The Licensee must not exhibit, alter or discontinue navigational lighting of the Works without the statutory sanction of the Commissioners of Northern Lighthouses. An 'Application for Statutory Sanction to Exhibit/Discontinue' form must be completed by the Licensee as fully as possible and returned to the NLB for the necessary sanction to be granted prior to exhibiting, altering or discontinuing navigational lighting.

Reason: *To reduce the navigational risk to other legitimate users of the sea, in accordance with s.71(2)(b) of the 2009 Act.*

3.2.4.5 Markings, lighting and signals of the Works

The Licensee must ensure that the Works are marked and lit in accordance with an approved LMP at all times. The LMP and any subsequent amendments must be approved by the Licensing Authority following consultation with the NLB, MCA, CAA and the MOD. The display of unauthorised marks or lights is prohibited.

The Licensee must ensure that the Works are marked and lit in accordance with IALA Recommendation O-139.

Unless otherwise approved by the Licensing Authority, the LMP must include:

1. the lighting requirements of the MCA, NLB, CAA and MOD;
2. that the boundary WTG, where they are more than 900m apart, must be lit with a single 2000 candela, red aviation light, flashing Morse 'W' in unison with all other boundary WTG;
3. that all other WTG must be fitted with a fixed single red 200 candela aviation light for SAR purposes; and
4. that all WTG aviation lights should be compatible with night vision imaging systems.

Reason: *To ensure safe appropriate marking and lighting of the offshore Works, in accordance with s.71(2)(b) of the 2009 Act.*

3.2.4.6 Operation and Maintenance of the Works

The Licensee must operate and maintain the Works in accordance with an approved OMP.

The OMP and any subsequent amendments must be approved by the Licensing Authority. The Licensing Authority must be notified at least three calendar months or such other period as agreed by the Licensing Authority in advance of any maintenance of the Works not included in the OMP and involving licensable marine activities not covered under this licence.

Reason: *To ensure compliance with the approved OMP to prevent decay of the Works and to ensure that any maintenance work is carried out under an appropriate licence in accordance with s.71(3)(b) of the 2009 Act.*

3.2.4.7 Restoration of the Site to its original condition

The Licensee must take all reasonable, appropriate and practicable steps at the end of the operational life of the Works to restore the Site to its original pre-construction condition, or to as close to its original condition as is reasonably practicable, in accordance with the PEMP and the DP and to the satisfaction of the Licensing Authority.

Should the Works be discontinued prior to expiry date of this marine licence, the Licensee must inform the Licencing Authority in writing of the discontinuation of the Works.

A separate marine licence will be required for the removal of Works.

Reason: *To mitigate the effects of the activity on the Site, in accordance with s.71(3)(e) of the 2009 Act.*

3.2.4.8 Charting requirements

The Licensee must, within one month of the final Completion of the Works, provide the coordinates accurate to three decimal places of minutes of arc for each WTG, position and maximum heights of the WTG to UKHO and the Defence Geographic Centre for nautical charting and aviation purposes.

Reason: *To reduce the navigational risk to other legitimate users of the sea, in accordance with s.71(2)(b) of the 2009 Act.*

3.2.4.9 Final Commissioning of the Works

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

Reason: *To inform the Licensing Authority of the Final Commissioning of the works, in accordance with s.71 (3)(c) of the 2009 Act.*

Figure 1: Moray West Offshore Wind Farm Site Location

