

SCHEDULE 2

Deemed marine licence under the Marine and Coastal Access Act 2009 – generation assets

PART 2

Conditions

Design parameters

1.—(1) Subject to sub-paragraph (2), no wind turbine generator forming part of the authorised scheme shall—

- (a) exceed a height of 223 metres when measured from MHWS to the tip of the vertical blade;
- (b) exceed a height of 123 metres when measured from MHWS to the height of the centreline of the generator shaft forming part of the hub;
- (c) exceed a rotor diameter of 200 metres;
- (d) be less than 700 metres from the nearest WTG or be greater than 1,960 metres from the nearest wind turbine generator in either direction;
- (e) have a distance of less than 22 metres between the lowest point of the rotating blade of the wind turbine and MHWS.

(2) References to the location of a wind turbine generator are references to the centre point of the tower of that turbine.

2. The total length of the cables comprising Work No. 1(b) shall not exceed 65 kilometres.

3.—(1) Each steel monopile foundation forming part of the authorised scheme (excluding scour protection) must not have a diameter greater than 8 metres.

(2) Each gravity base foundation forming part of the authorised scheme (excluding scour protection) must not have—

- (a) a diameter at the level of the seabed which is greater than 35 metres;
- (b) a base height which is greater than 6 metres above the level of the seabed;
- (c) a column diameter of greater than 9 metres.

(3) Each jacket foundation forming part of the authorised scheme (excluding scour protection) must not have—

- (a) a width spacing between each leg at the level of the seabed which is greater than 35 metres;
- (b) a leg diameter which is greater than 3 metres;
- (c) a width spacing between each leg at MHWS which is greater than 35 metres;
- (d) a pile sleeve height which is greater than 18 metres above the level of the seabed;
- (e) a pile diameter which is more than 3 metres;
- (f) more than one pile per leg; and
- (g) more than four legs.

(4) The total amount of scour protection for the WTGs forming part of the authorised scheme must not exceed 1,552,500 metres³.

(5) To reduce potential impacts on adult salmon migration—

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- (a) no more than 69 steel monopile foundations with a pile diameter of 6 metres or less (excluding scour protection) shall be installed as part of the authorised scheme;
- (b) no more than 65 steel monopile foundations with a pile diameter between 6 metres and 6.5 metres (excluding scour protection) shall be installed as part of the authorised scheme;
- (c) no more than 55 steel monopile foundations with a pile diameter between 6.5 metres and 7.5 metres (excluding scour protection) shall be installed as part of the authorised scheme;
- (d) no more than 45 steel monopile foundations with a pile diameter between 7.5 metres and 8 metres (excluding scour protection) shall be installed as part of the authorised scheme.

Notifications and inspections

- 4.—(1) The undertaker must ensure that—
- (a) a copy of this licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 12; and
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 12;
 - (b) within 28 days of receipt of a copy of this licence those persons referred to in paragraph (a) above shall provide a completed confirmation form to the MMO confirming that they have read and will comply with the terms of the conditions of this licence.
- (2) Only those persons and vessels notified to the MMO in accordance with condition 12 are permitted to carry out the licensed activities.
- (3) Copies of this licence must also be available for inspection at the following locations—
- (a) the undertaker’s registered address;
 - (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
 - (c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.
- (4) The documents referred to in sub-paragraph (1)(a) must be available for inspection by an authorised enforcement officer at the locations set out in sub-paragraph (3)(b) above.
- (5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during construction and operation of the authorised scheme.
- (6) The undertaker must inform the MMO Coastal Office in writing at least five working days prior to the commencement of the licensed activities or any part of them.
- (7) Prior to the commencement of the licensed activities or any part of them the undertaker must publish in the Kingfisher Fortnightly Bulletin details of the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part.
- (8) The undertaker must ensure that a notice to mariners is issued at least 10 working days prior to the commencement of the licensed activities or any part of them advising of the start date of Work No. 1 and the expected vessel routes from the local construction ports to the relevant locations.
- (9) The undertaker must ensure that the notices to mariners are updated and reissued at weekly intervals during construction activities and within 5 working days of any planned operations and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in

accordance with the construction programme approved under condition 10(b). Copies of all notices shall be provided to the MMO.

- (10) The undertaker must notify—
- (a) the United Kingdom Hydrographic Office of both the commencement (within two weeks), progress and completion (within two weeks) of the authorised scheme in order that all necessary amendments to nautical charts are made; and
 - (b) the MMO, MCA and Trinity House within two weeks once the authorised scheme is completed and any required lighting or marking has been established.

Navigational practice, safety and emergency response

5.—(1) The authorised scheme shall not commence until the Secretary of State, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and adequately addressed all MCA recommendations contained within MGN 371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” and its annexes including full details of the Emergency Co-operation Plans (ERCoP) for the construction, operation and decommissioning as appropriate to the authorised scheme.

(2) The undertaker will prepare and implement a project-specific Active Safety Management System, taking account of safety and mitigation measures as referred to in the navigation risk assessment in the environmental statement.

Aids to navigation

6.—(1) The undertaker must at or near the authorised scheme during the whole period of the construction, operation, alteration, replacement or decommissioning of the authorised scheme exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation, as Trinity House may from time to time direct.

(2) The undertaker must notify Trinity House, in writing, as soon as reasonably practicable, of the progress of construction of the authorised scheme or any part of it and any aids to navigation established from time to time during construction.

(3) The undertaker must provide reports on the availability of aids to navigation periodically as requested by Trinity House.

(4) In case of injury to, or destruction or decay of, the authorised scheme or any part thereof the undertaker must as soon as reasonably practicable notify Trinity House and must lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as Trinity House may from time to time direct.

7.—(1) The undertaker must colour all structures yellow from at least highest astronomical tide to a height directed by Trinity House, or shall colour the structure as directed by Trinity House from time to time.

(2) Subject to sub-paragraph (1) above, unless the Secretary of State otherwise directs, the undertaker must ensure that the wind turbine generators shall be painted submarine grey (colour code RAL 7035).

Chemicals, drilling and debris

8.—(1) Unless otherwise agreed in writing by the MMO all chemicals used in the construction of the authorised scheme, including any chemical agents placed within any monopile void, shall be

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selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002(1).

(2) The undertaker must ensure that any coatings/treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by the Health and Safety Executive or the Environment Agency Pollution Prevention Guidelines.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances shall be undertaken so as to prevent releases into the marine environment, including bunding of 110% of the total volume of all reservoirs and containers.

(4) Where foundation drilling works are proposed, in the event that any system other than water-based mud is proposed the MMO's written approval in relation to the proposed disposal of any arisings must be obtained before the drilling commences, which may also require a marine licence.

(5) The undertaker must ensure that any debris arising from the construction of the authorised scheme or temporary works placed below MHWS are removed on completion of the authorised scheme, unless otherwise agreed with the MMO.

(6) At least two months prior to the commencement of the licensed activities the undertaker must submit to the MMO an audit sheet covering all aspects of the construction of the licensed activities or any part of them. The audit sheet must include details of—

- (a) loading facilities;
- (b) vessels;
- (c) equipment;
- (d) shipment routes;
- (e) working schedules; and
- (f) all components and materials to be used in the construction of the authorised scheme.

(7) The audit sheet must be maintained throughout the construction of the authorised scheme (or relevant part) and any changes notified immediately in writing to the MMO which must give written approval prior to any change being implemented.

(8) In the event that the MMO becomes aware that any of the materials on the audit sheet cannot be accounted for it shall require the undertaker to carry out a side scan sonar survey to plot all obstructions across the relevant area(s) within the Order limits where construction works and related activities related to those materials have been carried out and, if the initial survey does not locate the missing materials, over such wider area as the MMO may reasonably request. Local fishermen must be invited to send a representative to be present during the survey. Any new obstructions that the MMO believes to be associated with the authorised scheme must be removed at the undertaker's expense.

(9) The undertaker must inform the MMO of the location and quantities of material disposed of each month under the Order, by submission of a disposal return by 31 January each year for the months August to January inclusive, and by 31 July each year for the months February to July inclusive.

(10) The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of foundations, and drilling mud shall be disposed of within the offshore Order limits (disposal site reference IS135 Burbo Bank Extension OWF). Any other materials must be screened out before disposal at this site.

(11) The undertaker must ensure that any rock material used in the construction of the authorised scheme is from a recognised source, free from contaminants and containing minimal fines.

(1) [S.I. 2009/1355](#). There are amendments to that instrument not relevant to this Order.

(12) In the event that any rock material used in the construction of the authorised scheme is misplaced or lost below MHWS, the undertaker must report the loss to the Coastal Office within 48 hours and if the MMO shall reasonably consider such material to constitute a navigation or environmental hazard (dependent on the size and nature of the material) the undertaker must endeavour to locate the material and recover it.

(13) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas should be contained to prevent run off entering the water through the freeing ports.

(14) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team.

Force majeure

9. If, due to stress of weather or any other cause the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life and/or of the vessel is threatened, within 48 hours full details of the circumstances of the deposit must be notified to the MMO. The unauthorised deposits must be removed at the expense of the undertaker unless written approval is obtained from the MMO.

Pre-construction plans and documentation

10. No part of the works at paragraph 2(2) of Part 1 (licensed marine activities) of this licence shall commence until the following (as relevant to that part) have been submitted to and approved in writing by the MMO—

- (a) a design plan at a scale of between and including 1:25,000 and 1:50,000, including detailed representation on the most suitably scaled admiralty chart, to be agreed in writing with the MMO in consultation with Trinity House and the MCA which shows—
 - (i) the indicative proposed layout and location and choice of foundation of all wind turbine generators;
 - (ii) the height to the tip of the vertical blade; height to the centreline of the generator shaft forming part of the hub; rotor diameter and spacing of all wind turbine generators;
 - (iii) the length and arrangement of all cables comprising Work No. 1(b);
 - (iv) the dimensions of all gravity base foundations;
 - (v) the dimensions of all jacket foundations;
 - (vi) the dimensions of all steel monopile foundations;
 - (vii) in plan form, the indicative programming of particular works as set out in the indicative construction programme to be provided under sub-paragraph (b)(iv);
 - (viii) any exclusion zones or micro-siting requirements identified in any mitigation scheme pursuant to sub-paragraph (j);
 - (ix) any archaeological exclusion zones identified under sub-paragraph (h)(iv);to ensure conformity with the description of Work No. 1 and compliance with conditions 1 to 4 above;
- (b) a construction and monitoring programme to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works;

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- (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction monitoring and related reporting in accordance with sub-paragraph (h), and conditions 14, 15 and 16. The pre-construction survey programme and all pre-construction survey methodologies shall be submitted to the MMO for written approval by the MMO in consultation with Natural England at least four months prior to the start of any survey works detailed within; and
 - (iv) an indicative written construction programme for all wind turbine generators and cables comprised in the works at paragraph 2(2) of Part 1 (licensed marine activities) of this licence (insofar as not shown in (b) above);
- (c) a construction method statement in accordance with the construction methods assessed in the environmental statement and including details of—
 - (i) drilling methods and disposal of drill arisings;
 - (ii) WTG location and installation, including scour protection;
 - (iii) cable installation;
 - (iv) contractors;
 - (v) vessels and vessels transit corridors;
 - (vi) associated works; and
 - (vii) proposed mitigation measures;
- (d) a project environmental management and monitoring plan to include details of—
 - (i) a marine pollution contingency plan to address the risks, methods and procedures to deal with any spills and collision incidents during construction and operation of the authorised scheme in relation to all activities carried out;
 - (ii) a chemical risk assessment to include information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance;
 - (iii) waste management plan and disposal arrangements; and
 - (iv) the appointment and responsibilities of a fisheries liaison officer and an environmental liaison officer;
- (e) a scour protection management and cable armouring plan providing details of the need, type, sources, quantity and installation methods for scour protection and cable armouring for cable crossings;
- (f) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol to be agreed in writing with the MMO in consultation with Natural England and following current best practice as advised by the statutory nature conservation agencies, to include—
 - (i) identification of a Marine Mammal Monitoring Zone (MMMZ);
 - (ii) appointment of an appropriate number of suitably qualified marine mammal observer(s);
 - (iii) methods for the detection of marine mammals within the MMMZ whether visually (by the marine mammal observer(s)) or acoustically using passive acoustic monitoring equipment or other means of detection;
 - (iv) a reporting methodology to enable efficient communication between the marine mammal observer(s) and the person responsible for approving commencement of piling;

- (v) an appropriate soft start procedure whereby piling activities do not commence until an agreed time has elapsed and during which marine mammals have not been detected within the MMMZ;
- (vi) where appropriate, methods for the application of acoustic deterrent devices;
- (g) a cable specification and installation plan to be agreed in writing by the MMO, and to include—
 - (i) technical specification of the offshore cables including a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice; and
 - (ii) a detailed cable laying plan, incorporating a burial risk assessment to ascertain suitable burial depths and cable laying techniques;
- (h) a written scheme of archaeological investigation (WSI) in relation to the Order limits in accordance with industry best practice and to be approved in writing by the MMO in consultation with English Heritage to include—
 - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for any further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) analysis and reporting of survey data, and timetable, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, archaeological exclusion zones including all spatial data for the extent and location of archaeological exclusion zones;
 - (v) monitoring during and post construction, including a conservation programme for finds;
 - (vi) archiving of archaeological material, inclusive of any completed and agreed archaeological reports produced through the WSI which are to be deposited by the undertaker within a public archive in accordance with the OASIS (Online Access to the Index of archaeological investigations) system; and
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme;
- (i) a vessel traffic management plan during construction and operation of the authorised scheme, to include vessel routing for any vessels operating from the Port of Barrow such that all such vessels avoid the area of the Liverpool Bay SPA plus a 2 kilometre buffer from the boundary of the SPA during the period October to March and in the area north of grid reference 53.683333 (DD, WGS 1984) in order to avoid the disturbance of wintering aggregations of common scoter at, and in the vicinity of, the Shell Flat;
- (j) a mitigation scheme for any Annex 1 features identified by the survey referred to in condition 14(2)(a).

11.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 10 shall be submitted for approval at least four months prior to the intended start of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The licensed activities shall be carried out in accordance with the approved plans, protocols, statements, schemes and details approved under condition 10, unless otherwise agreed in writing by the MMO.

Reporting of engaged agents, contractors and vessels

- 12.—(1) The undertaker must provide the following information to the MMO—
- (a) the name and function of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
 - (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.
- (2) Any changes to the supplied details must be notified to the MMO in writing five working days prior to the agent, contractor or vessel engaging in the licensed activities.

Equipment and operation of vessels engaged in licensed activities

- 13.—(1) All vessels employed to perform the licensed activities must be constructed and equipped to be capable of the proper performance of such activities in accordance with the conditions of this licence and (save in the case of remotely operated vehicles or vessels) must comply with sub-paragraphs (2) to (5) below.
- (2) All motor powered vessels must be fitted with—
- (a) electronic positioning aid to provide navigational data;
 - (b) radar;
 - (c) echo sounder; and
 - (d) multi-channel VHF.
- (3) All vessels' names or identification must be clearly marked on the hull or superstructure.
- (4) All communication on VHF working frequencies must be in English.
- (5) No vessel shall engage in the licensed activities until all the equipment specified in sub-paragraph (2) is fully operational.

Pre-construction monitoring

- 14.—(1) The undertaker must, in discharging condition 10(b), submit details for the written approval by the MMO, in consultation with Natural England, of proposed pre-construction surveys, including methodologies and timings, with archaeological advice where necessary, and a proposed format and content for a pre-construction baseline report; and
- (a) the survey proposals shall specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement; and
 - (b) the baseline report proposals shall ensure that the outcome of the agreed surveys together with existing data and reports are drawn together to present a valid statement of the pre-construction position, with any limitations, and shall make clear what post-construction comparison is intended and the justification for this being required.
- (2) The pre-construction surveys referred to sub-paragraph (1) shall unless otherwise agreed with the MMO have due regard to, but not be limited to, the need to undertake—
- (a) a survey, in combination with data derived from paragraph (c) to determine the location and extent of any benthic Annex 1 Habitat in whole or in part inside the area(s) within the Order limits in which it is proposed to carry out construction works;
 - (b) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and or economic importance;

- (c) a high resolution swath-bathymetric survey and side scan sonar survey of the area(s) within the Order limits in which it is proposed to carry out construction works, including a 500 metre buffer around the site of each works and inclusive of seabed anomalies or sites of historical or archaeological interest that lie within that 500 metre buffer; and
- (d) a survey of existing ornithological activity (in accordance with the principles set out in the outline ornithological survey document) inside the area(s) within the Order limits in which it is proposed to carry out construction works, and any wider area(s) where appropriate, which is required to test predictions in the environmental statement concerning key ornithological interests of relevance to the authorised scheme.

(3) The undertaker shall carry out the surveys agreed under sub-paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO, in consultation with Natural England.

Construction monitoring

15.—(1) Unless otherwise agreed, the undertaker must, in discharging condition 10(b), submit details for approval by the MMO in consultation with Natural England of any proposed surveys or monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives. In any event, such monitoring shall, where driven or part-driven pile foundations are proposed to be used, include monitored background noise measurements (during periods when piling is not being undertaken) and measurements of noise generated by the installation of all piled foundations.

(2) The undertaker must carry out the surveys approved under sub-paragraph (1) and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with Natural England.

(3) The results of the initial noise measurements shall be provided to the MMO within four weeks of the installation of the last of the four piles, unless otherwise agreed with the MMO. The assessment of this report by the MMO shall determine whether any further noise monitoring is required.

Post construction surveys

16.—(1) The undertaker must, in discharging condition 10(b), submit details for written approval by the MMO in consultation with Natural England of proposed post-construction surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results at least four months prior to the start of any survey works detailed within. The survey proposals shall specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) The post construction surveys referred to in sub-paragraph (1) must unless otherwise agreed with the MMO have due regard to, but not be limited to, the need to undertake—

- (a) one high resolution swath bathymetric survey and side scan sonar survey per annum around a sample of adjacent turbines to a distance of three turbine spacings to assess any changes in seabed topography. For this purpose the undertaker will prior to the first such survey submit a desk based assessment to be approved by the MMO (which takes account of all factors which influence scour) to identify the sample of adjacent turbines with greatest potential for scour. The survey will be used to validate the desk based assessment: further surveys beyond three years post-construction specified in sub-paragraph (3) may be required if there are significant differences between the predicted scour and recorded scour;

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- (b) a survey to determine the location, extent and composition of any benthic habitats of conservation, ecological and or economic importance to validate predictions made in the environmental statement; and
 - (c) an ornithological survey (in accordance with the principles set out in the outline ornithological survey document) covering the area(s) within the Order limits in which construction works were carried out, and any wider area(s) where appropriate, as required to test predictions in the environmental statement concerning key ornithological interests of relevance to the authorised scheme.
- (3) The undertaker must carry out the surveys agreed under sub-paragraph (1) for three years post-construction which may be non-consecutive years and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with Natural England.

Piling restrictions

17.—(1) Unless otherwise agreed in writing with the MMO, the installation of piled foundations of 8 metres diameter with a hammer energy of 2,700 kj must not take place within the Order limits between—

- (a) 1 April and 15 May to avoid the impacts on high intensity dover sole spawning; or
- (b) 15 April to 31 May to avoid the impacts on salmon smolt and sea trout smolt migration.

(2) In the case of proposed installation of piled foundations of less than 8 metres diameter and/or a hammer energy of less than 2,700 kj a calculation of projected noise measurements and contours must be provided to the MMO and installation must not take place until the same or reduced piling restriction period or alternative mitigation has been approved by the MMO in writing in consultation with the Environment Agency, unless otherwise agreed in writing with the MMO.

(3) Unless otherwise agreed with the MMO, the installation of piled foundations must be carried out on the basis of “6 hours on – 6 hours off”, so that a period of 6 hours of no piling shall follow each piling event which shall be up to 6 hours in duration (be that from single or two simultaneous piling operations) in order to allow the migration of adult salmon and sea trout.