

## SCHEDULE 1

Articles 2 and 39

### Marine Licence 1: Project A Offshore (Generation – Works No. 1A and 2T)

#### PART A

##### Licensed activities

#### Interpretation

**1.**—(1) In this licence—

“2004 Act” means the Energy Act 2004;

“2009 Act” means the Marine and Coastal Access Act 2009;

“Annex 1 habitat” means a habitat set out in Annex 1 to Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora;

“authorised deposits” means the substances and articles specified in paragraph 2(3);

“authorised scheme” means Works No. 1A and 2T described in paragraph 2 or any part or phase of those works;

“cable crossings” means the crossing of existing subsea cables and pipelines by the inter-array, interconnecting or export cables authorised by the Order together with physical protection measures including cable protection;

“cable protection” means any measures to protect cables and prevent loss of seabed sediment, for example by the use of grout bags, protective aprons, mattresses, flow energy dissipation devices or rock and gravel burial;

“combined platform” means a single offshore platform combining 2 or more of the following—

- (a) an offshore collector platform;
- (b) an offshore converter platform;
- (c) an offshore accommodation or helicopter platform;

“commence” means the first carrying out of any part of the licensed activities except for pre-construction surveys and monitoring; and “commencement” must be construed accordingly;

“commercial operation” means the exporting, on a commercial basis, of electricity from the wind turbine generators comprised within the authorised scheme;

“Condition” means a condition in Part B;

“draft fisheries liaison plan” means the document certified as the draft fisheries liaison plan by the Secretary of State for the purposes of the Order;

“enforcement officer” means a person authorised to carry out enforcement duties under Chapter 3 of the 2009 Act;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order and submitted with the application together with any supplementary or further environmental information submitted in support of the application;

“gravity base foundation” means a foundation type that rests on the seabed and supports the wind turbine generator, meteorological station or offshore platform primarily due to its own weight and that of added ballast, with or without skirts or other additional fixings, which may include associated equipment including J-tubes and access platforms and separate topside connection structures or an integrated transition piece. (Sub-types for wind turbine generators and meteorological stations include conical gravity base and flat-based gravity base foundations. Sub-types for platforms include offshore platform conical or flat-base gravity base foundations and offshore platform semi-submersible gravity base foundations);

“HAT” means highest astronomical tide;

“HVDC” means high voltage direct current;

“In Principle Monitoring Plan” means the document certified as the In Principle Monitoring Plan by the Secretary of State for the purposes of the Order;

“Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“licensed activities” means the activities specified in this Part;

“maintain” includes inspect, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule 1 (ancillary works) to the Order and any component part of any wind turbine generator, offshore platform, meteorological station, electricity or communication cable described in Part 1 of that Schedule (authorised development) (but not including the removal or replacement of foundations) to the extent outlined within the post-construction maintenance plan; and “maintenance” must be construed accordingly;

“MCA” means the Maritime and Coastguard Agency;

“meteorological mast” or “meteorological station” means a fixed or floating structure housing or incorporating equipment to measure wind speed and other meteorological and oceanographic characteristics, including a topside which may house electrical switchgear and communication equipment and associated equipment, and marking and lighting;

“MHWS” (mean high water springs) means the highest level which spring tides reach on average over a period of time;

“MMO” means the Marine Management Organisation;

“monopole foundation” means foundation options based around a single vertical pillar structure driven, drilled, or embedded into the seabed by means such as suction or gravity. This main support structure may change in diameter via tapers and abrupt steps. (Sub-types for wind turbine generators and meteorological stations include monopole with steel monopile footing, monopole with concrete monopile footing and monopole with a single suction-installed bucket footing);

“multi-leg foundation” means foundation options based around structures with several legs or footings. This includes jackets, tripods, and other structures which include multiple large tubulars, cross-bracing, or lattices. Multi-leg foundations may be fixed to the seabed by footings which are driven, drilled, screwed, jacked-up or embedded into the seabed by means such as suction or gravity. (Sub-types for wind turbine generators and meteorological stations include multi-legs with driven piles, drilled piles, screw piles, suction buckets and jack-up foundations. Sub-types for platforms include offshore platform jacket foundations (potentially using driven piles, suction buckets or screw piles) and offshore platform jack-up foundations);

“notice to mariners” includes any notice to mariners which may be issued by the Admiralty, Trinity House, Queen’s harbourmasters, government departments and harbour and pilotage authorities;

“offshore accommodation or helicopter platform” means a platform (either singly or as part of a combined platform) housing or incorporating some or all of the following: accommodation for staff during the construction, operation and decommissioning of the authorised scheme, landing facilities for vessels and helicopters, re-fuelling facilities, communication and control systems, electrical systems such as metering and control systems, J-tubes, small- and large-scale electrical power systems, auxiliary and uninterruptible power supplies, large-scale

energy storage systems, standby electricity generation equipment, cranes, storage for waste and consumables including fuel, marking and lighting and other associated equipment and facilities;

“offshore collector platform” means a platform (either singly or as part of a combined platform) housing or incorporating electrical switchgear or electrical transformers, electrical systems such as metering and control systems, J-tubes, landing facilities for vessels and helicopters, re-fuelling facilities, accommodation for staff during the construction, operation and decommissioning of the authorised scheme, communication and control systems, auxiliary and uninterruptible power supplies, large-scale energy storage systems, standby electricity generation equipment, cranes, storage for waste and consumables including fuel, marking and lighting and other associated equipment and facilities;

“offshore converter platform” means a platform (either singly or as part of a combined platform) housing or incorporating HVDC electrical switchgear or electrical transformers and other equipment to enable HVDC transmission to be used to convey the power output of the multiple wind turbine generators to shore including electrical systems such as metering and control systems, J-tubes, landing facilities for vessels and helicopters, re-fuelling facilities, accommodation for staff during the construction, operation and decommissioning of the authorised scheme, communication and control systems, auxiliary and uninterruptible power supplies, large-scale energy storage systems, standby electricity generation equipment, cranes, storage for waste and consumables including fuel, marking and lighting and other associated equipment and facilities;

“offshore Order limits plan” means the plans certified as the offshore Order limits and grid coordinates plan by the Secretary of State for the purposes of the Order;

“offshore platform” means any of the following—

- (a) an offshore accommodation or helicopter platform;
- (b) an offshore collector platform;
- (c) an offshore converter platform;
- (d) a combined platform;

“onshore Order limits plan” means the plans certified as the onshore Order limits and grid coordinates plan by the Secretary of State for the purposes of the Order;

“Order” means the Dogger Bank Creyke Beck Offshore Wind Farm Order 2015;

“Order limits” means the limits shown on the offshore and onshore Order limits plans;

“outline maintenance plan” means the document certified as the outline maintenance plan by the Secretary of State for the purposes of the Order;

“scour protection” means protection against foundation scour and subsea damage, for example from trawling, through reinforcement measures and measures to prevent loss of seabed sediment around foundation bases. These measures include the use of bagged solutions filled with grout or other materials, protective aprons, mattresses, flow energy dissipation devices and rock and gravel burial;

“undertaker” means Doggerbank Project 1 Bizco Limited (company number 7791991) whose registered office is 55 Vastern Road, Reading, Berkshire RG1 8BU;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“wind turbine generator” means a structure comprising a tower, a rotor with 3 blades connected at the hub, a nacelle and ancillary electrical and other equipment which may include J-tubes, transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter transfer facilities and other associated equipment, fixed to a foundation.

(2) In this licence, a reference to any statute, order, regulation or similar instrument is a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) In this licence, unless otherwise indicated,—

- (a) all times are Greenwich Mean Time (GMT);
- (b) all co-ordinates are latitude and longitude decimal degrees to 6 decimal places. The datum system used is WGS84.

(4) Except where otherwise notified in writing by the relevant organisation, the primary point of contact with the organisations listed below, and the address for returns and correspondence, is—

(a) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle-upon-Tyne NE4 7YH

Email: [marine.consents@marinemanagement.org.uk](mailto:marine.consents@marinemanagement.org.uk)

Tel: 0300 123 1032;

(b) Trinity House

Tower Hill

London EC3N 4DH

Tel: 020 7481 6900;

(c) United Kingdom Hydrographic Office

Admiralty Way

Taunton

Somerset TA1 2DN

Tel: 01823 337 900;

(d) Maritime and Coastguard Agency

Navigation Safety Branch

Bay 2/04

Spring Place

105 Commercial Road

Southampton SO15 1EG

Tel: 023 8032 9191;

(e) Centre for Environment, Fisheries and Aquaculture Science

Pakefield Road

Lowestoft

Suffolk NR33 0HT

Tel: 01502 562 244;

(f) Natural England

Foundry House

3 Millsands

Riverside Exchange  
Sheffield S3 8NH  
Tel: 0300 060 4911;

(g) JNCC  
Inverdee House  
Baxter Street  
Aberdeen AB11 9QA  
Tel: 01224 266 550;

(h) English Heritage  
Eastgate Court  
195-205 High Street  
Guildford GU1 3EH  
Tel: 01483 252 057.

(5) For information only, the details of the local MMO office to the authorised scheme is—

Marine Management Organisation  
Northern Marine Area  
Neville House  
Central Riverside  
Bell Street  
North Shields  
Tyne and Wear NE30 0LJ  
Tel: 0191 257 4520.

### **Details of licensed activities**

2.—(1) This licence authorises the undertaker (and any agent or contractor acting on its behalf) to carry out the following licensable marine activities under Part 4 of the 2009 Act, subject to the Conditions—

- (a) the deposit at sea of the substances and articles specified in sub-paragraph (3);
- (b) the construction of works in or over the sea or on or under the sea bed including the removal, reconstruction or alteration of the position of subsea cables and pipelines;
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation.

(2) Subject to sub-paragraph (7), such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 1A—

- (a) an offshore wind turbine generating station with a gross electrical output capacity of up to 1.2 gigawatts comprising up to 200 wind turbine generators each fixed to the seabed by monopole, multi-leg or gravity base type foundations situated within the co-ordinates of the array area specified in Table 1A;

**Table 1A - Co-ordinates of array area**

<i>Point</i>	<i>Latitude (decimal degrees)</i>	<i>Longitude (decimal degrees)</i>
CBA-1	54.835241	1.633573
CBA-2	54.838412	2.174407
CBA-3	54.808700	2.227327
CBA-4	54.659286	1.976949
CBA-5	54.741685	1.632884

- (b) up to 7 offshore platforms comprising the following—
- (i) up to 4 offshore collector platforms situated within the co-ordinates of the array area specified in Table 1A and being fixed to the seabed by multi-leg or gravity base type foundations;
  - (ii) 1 offshore converter platform situated within the co-ordinates of the array area specified in Table 1A and being fixed to the seabed by multi-leg or gravity base type foundations; and
  - (iii) up to 2 offshore accommodation or helicopter platforms situated within the co-ordinates of the array area specified in Table 1A and being fixed to the seabed by multi-leg or gravity base type foundations,
- provided that any of the platforms comprised in Work No. 1A(b)(i) to (iii) may be co-joined to create a combined platform fixed to the seabed by multi-leg or gravity base type foundations;
- (c) up to 5 meteorological stations situated within the co-ordinates of the array area specified in Table 1A either fixed to the seabed by monopole, multi-leg or gravity base type foundations or utilising a floating support structure anchored to the seabed; and
- (d) a network of cables for the transmission of electricity and electronic communications laid on or beneath the seabed including cable crossings between—
- (i) any of the wind turbine generators comprising Work No. 1A(a);
  - (ii) any of the wind turbine generators comprising Work No. 1A(a) and any of the works comprising Work No. 1A(b) or (c); and
  - (iii) any of the works comprising Work No. 1A(b) and any of the works comprising Work No. 1A(c); and
  - (iv) the offshore converter platform comprising Work No. 1A(b)(ii) or the combined platforms referred to in Work No. 1A(b) and the export cable route in Work No. 2A (as defined in the Order);

Work No. 2T – a temporary work area for vessels to carry out intrusive activities during construction, including vessels requiring anchor spreads alongside the cable corridors; and

Ancillary works in connection to the above-mentioned works comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised scheme;
  - (b) temporary or permanent buoys, beacons, fenders and other navigational warning or ship impact protection works;
  - (c) temporary works for the protection of land or structures affected by the authorised scheme;
  - (d) cable protection, scour protection or dredging; and
  - (e) cable route preparation works including boulder removal and obstruction clearance, dredging and pre-sweeping.
- (3) The substances or articles authorised for deposit at sea are—

- (a) iron, steel, aluminium and titanium;
- (b) stone and rock;
- (c) concrete and grout;
- (d) sand and gravel;
- (e) plastic and synthetic;
- (f) material extracted from within the offshore Order limits during construction drilling and seabed preparation for foundation works and cable sandwave preparation works; and
- (g) marine coatings, other chemicals and timber.

(4) Subject to the Conditions, this licence authorises the disposal of up to 1,107,411 cubic metres of material of natural origin within Work No. 1A produced during construction drilling and seabed preparation for foundation works and cable sandwave preparation works.

(5) The undertaker must inform the MMO of the location and quantities of material disposed of each month pursuant to sub-paragraph (4) by submission of a disposal return by 31st January each year for the months August to January inclusive, and by 31st July each year for the months February to July inclusive.

(6) This licence does not permit the decommissioning of the authorised scheme. No decommissioning activity must commence until a decommissioning programme has been approved by the Secretary of State under section 106 of the 2004 Act. Furthermore, at least 4 months before carrying out any such works, the undertaker must notify the MMO of the proposed decommissioning activity to establish whether a marine licence is required for such works.

(7) This licence and Marine Licence 3 (as defined in the Order), when taken together, do not authorise the construction of more than 1 Work No. 1A or the construction of Work No. 1A in excess of the maximum parameters for that Work set out in Schedule 1 to the Order.

## PART B

### Conditions

#### **Detailed offshore design parameters**

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

- (a) exceed a height of 315 metres when measured from HAT to the tip of the vertical blade;
- (b) exceed a rotor diameter of 280 metres;
- (c) be less than a multiple of 6 times the rotor diameter from the nearest wind turbine generator in any direction being not less than 700 metres measured between turbines; or
- (d) have a distance of less than 26 metres between the lowest point of the rotating blade of the wind turbine generator and the level of the sea at HAT.

(2) The wind turbine generators comprised in Work No. 1A must be of such a size that if they were installed to the maximum permitted gross generating capacity specified for that work the total rotor-swept area would not exceed 4.35 square kilometres.

(3) Wind turbine generator and meteorological mast foundation structures forming part of the authorised scheme must be 1 of the following foundation options: monopole, multi-leg or gravity base.

(4) No wind turbine generator or meteorological mast foundation structure employing a footing of driven piles forming part of the authorised scheme must—

- (a) have more than 6 driven piles;
- (b) in the case of single pile structures, have a pile diameter of greater than 10 metres and employ a hammer energy during installation of greater than 3,000 kilojoules; or

(c) in the case of 2 or more pile structures, have a pile diameter of greater than 3.5 metres or employ a hammer energy during installation of greater than 2,300 kilojoules.

(5) The foundations for wind turbine generators must be in accordance with the wave reflection coefficient values as set out at Fig 3.16 within Chapter 5 and Appendix 5.B of the environmental statement.

(6) No wind turbine generator foundation must have a seabed footprint area of subsea scour protection (excluding foundation footprint) of more than 3,777 square metres.

(7) The foundations for wind turbine generators and meteorological stations must not exceed the dimensions set out below—

<i>Foundation type (monopole, multi-leg or gravity base foundations)</i>	<i>Maximum width of main supporting structure in metres</i>	<i>Maximum seabed footprint area per foundation (excluding scour protection) in square metres</i>
Wind turbine generator and meteorological station foundation	61	2,376

(8) The total seabed footprint area of subsea scour protection for wind turbine generator foundations (excluding foundation footprint) must not exceed 0.7554 square kilometres within Work No. 1A.

(9) The volume of subsea scour protection material for wind turbine generator foundations within Work No. 1A must not exceed 1,084,800 cubic metres.

(10) The total cable protection for HVAC inter-array cables (excluding cable crossing) must not exceed an area of 0.5557 square kilometres or a volume of 217,850 cubic metres within Work No. 1A.

(11) References to the location of a wind turbine generator are references to the centroid point at the base of the turbine.

(12) No lattice tower forming part of a meteorological station must exceed a height of 315 metres above HAT.

(13) The length of HVAC cables comprising Work No. 1A must not exceed 950 kilometres.

**4.—(1)** The total number of offshore platforms forming part of the authorised scheme must not exceed 7 comprising—

- (a) up to 4 offshore collector platforms;
- (b) up to 1 offshore converter platform;
- (c) up to 2 offshore accommodation or helicopter platforms,

provided that any of the platforms comprised in paragraphs (a) to (c) may be co-joined to create a combined platform fixed to the seabed by multi-leg or gravity base type foundations.

(2) The dimensions of any offshore collector platforms forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed 75 metres in length, 75 metres in width and 85 metres in height above HAT.

(3) The dimensions of any offshore converter platform forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed 125 metres in length, 100 metres in width and 105 metres in height above HAT.

(4) The dimensions of any offshore accommodation or helicopter platforms forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed 125 metres in length, 100 metres in width and 105 metres in height above HAT.

(5) The dimensions of any combined platform forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed the total footprint of the individual platforms incorporated within it.



(6) Offshore platform foundation structures forming part of the authorised scheme must be 1 of the following foundation options: gravity base or multi-leg.

(7) No offshore platform foundation structure employing a footing of driven piles forming part of the authorised scheme must—

- (a) have more than 24 driven piles;
- (b) have a pile diameter of greater than 2.744 metres or employ a hammer energy during installation of greater than 1,900 kilojoules.

(8) No offshore platform foundation must have a seabed footprint area of subsea scour protection (excluding foundation footprint) of more than 8,742 square metres.

(9) The foundations for offshore platforms must not exceed the dimensions set out below—

<i>Foundation type</i>	<i>Offshore collector platform (multi-leg or gravity base foundation)</i>	<i>Offshore converter platform (multi-leg or gravity base foundation)</i>	<i>Offshore accommodation or helicopter platform (multi-leg or gravity base foundation)</i>
Maximum seabed footprint area per foundation (excluding scour protection) in square metres	5,625	12,500	12,500

(10) The number of vessels actively carrying out impact piling as part of the installation of driven pile foundations for the authorised scheme must at no time exceed 2 within Work No. 1A.

### **Layout rules**

**5.—**(1) The positions of wind turbine generators and offshore platforms must be arrayed in accordance with parameters applicable to Work No. 1A specified in Condition 3 and the principles within section 5.2 of Chapter 5 of the environmental statement.

(2) No construction of any wind turbine generator or offshore platform forming part of the authorised scheme must commence until the MMO, in consultation with the MCA, has approved their general layout arrangements. These layout arrangements must specify the physical point of connection between generation and transmission assets for Project A (as defined in the Order).

(3) The construction of the wind turbine generators and offshore platforms must be carried out as approved.

### **Notifications and inspections**

**6.—**(1) The undertaker must ensure that—

- (a) before any licensed activities are carried out under this licence, the undertaker informs the MMO of—
  - (i) the name of the person undertaking the licensed activities;
  - (ii) the works being undertaken pursuant to this licence comprising those works necessary up to the point of connection with the transmission assets;
  - (iii) the maximum total area and volume for any cable protection for HVAC inter-array cables and HVAC inter-platform cables to be constructed within the array area pursuant to this licence; and
  - (iv) the maximum total area and volume for any cable protection to be constructed within the array area pursuant to this licence;
- (b) any works notified under this Condition when combined with any works notified under Condition 6 of Marine Licence 2 (as defined in the Order) and Condition 5 of Marine

Licences 3 and 4 (as defined in the Order) do not exceed the maximum parameters set out in Schedule 1 to the Order;

- (c) 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; and
- (d) within 28 days of receipt of a copy of this licence, the persons referred to in paragraph (c) provide a completed confirmation form to the MMO confirming that they have read and will comply with the terms of this licence.

(2) Only the 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 are to be made.

(4) The documents referred to in sub-paragraph (1)(c) must be available for inspection by an enforcement officer at all reasonable times at the locations set out in sub-paragraph (3)(b).

(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 5 working days before commencement of the licensed activities or any phase of them.

(7) Before commencement of the licensed activities or any phase 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 phase.

(8) The undertaker must ensure that a notice to mariners is issued at least 10 working days before commencement of the licensed activities or any phase of them advising of the commencement date of Work No. 1A 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 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 9(b). Copies of all notices must be provided to the MMO.

(10) The undertaker must notify—

- (a) the United Kingdom Hydrographic Office at least 2 weeks before commencement, and no later than 2 weeks following completion, of the authorised scheme in order that all necessary amendments to nautical charts are made; and
- (b) the MMO, MCA and Trinity House once the authorised scheme is completed and any required lighting or marking has been established.

### **Chemicals, drilling and debris**

7.—(1) All chemicals used in the construction of the authorised scheme, including any chemical agents placed within any monopile or other foundation structure void, must be selected from the

list of notified chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002(a).

(2) The undertaker must ensure that any coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by Health and Safety Executive or the Environment Agency pollution prevention control guidelines. Any spillages must be reported to the MMO marine pollution response team within the timeframes specified in the marine pollution contingency plan.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must 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 seaward of MHWS is removed on completion of the authorised scheme.

(6) All dropped objects must be reported to the MMO using a dropped object form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of a dropped object form, the MMO may require side-scan sonar surveys to be carried out by the undertaker across a reasonable area of search agreed with the MMO where construction works and related activities have been carried out. The MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so. Representatives of the Holderness Fishing Industry Group must be invited to send a representative to be present during the survey.

(7) *This condition has been deleted*

(8) *This condition has been deleted*

### **Force majeure**

8. 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 otherwise than in accordance with Condition 10(2) because the safety of human life or the vessel is threatened—

- (a) within 48 hours full details of the circumstances of the deposit must be notified to the MMO; and
- (b) at the written request of the MMO, the unauthorised deposits must be removed at the expense of the undertaker.

### **Pre-construction plans and documentation**

9. The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO—

- (a) a plan to be agreed in writing with the MMO following consultation with Trinity House and the MCA which shows—
  - (i) the number, specifications and dimensions of the wind turbine generators;
  - (ii) the proposed location, including grid co-ordinates and choice of foundation types for all wind turbine generators, offshore platforms and meteorological stations;
  - (iii) the dimensions of all monopole, multi-leg and gravity base foundations, if used; and
  - (iv) the proposed layout of HVAC cables,

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(a) S.I. 2002/1355, amended by S.I. 2011/982.

- to ensure conformity with the description of Work No. 1A and compliance with Conditions 3 to 5;
- (b) a detailed construction and monitoring programme to include details of—
    - (i) the proposed construction commencement date;
    - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works; and
    - (iii) proposed pre-construction surveys, a proposed format and content for a baseline report, construction monitoring, post-construction monitoring and related reporting in accordance with Conditions 14, 15 and 16. The pre-construction survey programme and all pre-construction survey methodologies must be submitted to the MMO for written approval at least 4 months before commencement of any survey works detailed within;
  - (c) a construction method statement in accordance with the construction methods assessed in the environmental statement to include details of—
    - (i) drilling methods and disposal of drill arisings;
    - (ii) turbine, meteorological mast and platform location and installation, including scour protection and foundations;
    - (iii) cable installation;
    - (iv) impact piling including soft start procedures;
    - (v) the source of rock material used in construction and method to minimise contaminants and fines;
    - (vi) contractors;
    - (vii) vessels; and
    - (viii) associated works;
  - (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 and disposal arrangements including arrangements to ensure no waste concrete slurry or wash water from concrete or cement work is discharged;
    - (iv) the fisheries liaison officer appointed by the undertaker (to be notified to the District Marine Officer for the MMO's Northern District). Evidence of liaison must be collated so that signatures of attendance at meetings, agenda and minutes of meetings with the fishing industry can be provided to the MMO if requested; and
    - (v) a fisheries liaison plan in accordance with the draft fisheries liaison plan to include information on liaison with the fishing industry (including by the fisheries liaison officer referred to in sub-paragraph (iv)) and a co-existence plan;
  - (e) a marine mammal mitigation protocol, the intention of which is to prevent, amongst other things, injury to marine mammals, primarily auditory injury within the vicinity of any piling, and appropriate monitoring surveys in accordance with the In Principle Monitoring Plan, to be agreed in writing with the MMO in consultation with the relevant statutory nature conservation body;
  - (f) a cable specification and installation plan following consultation with the relevant statutory nature conservation body, to include—
    - (i) technical specification of 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;

- (ii) a staged cable-laying plan for the Order limits, incorporating a burial risk assessment to ascertain suitable burial depths and cable-laying techniques;
  - (iii) a scour protection management and cable protection plan providing details of the need, type, sources, quality and installation methods for scour protection and cable protection; and
  - (iv) details of the methodology and extent of a post-lay survey, to confirm burial depths; and
- (g) a written scheme of archaeological investigation in relation to offshore areas within the Order limits in accordance with Chapter 18 Appendix B of the environmental statement, industry good practice and after discussions with English Heritage to include—
- (i) details of the 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) within 3 months of any survey being completed, a timetable to be submitted to the MMO setting out the timeframe for the analysis and reporting of survey data;
  - (iv) delivery of any mitigation including, where necessary, archaeological exclusion zones;
  - (v) monitoring during and post-construction, including a conservation programme for finds;
  - (vi) archiving of archaeological material including ensuring that a copy of any agreed archaeological report is deposited with the English Heritage archive by submitting an English Heritage OASIS form with a digital copy of the report; and
  - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme.

**10.**—(1) Each programme, statement, plan, protocol, scheme or details required to be approved under Condition 9, and the arrangements required to be approved under Condition 5, must be submitted for approval at least 4 months before the intended commencement of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The licensed activities must be carried out in accordance with the programme, statement, plan, protocol scheme or details approved under Condition 9.

### **Offshore safety management**

**11.**—(1) Offshore works must not commence until the MMO, in consultation with the MCA, has given written approval for an Emergency Response and Co-operation Plan (“ERCoP”) which includes full details of the ERCoP for the construction, operation and decommissioning phases of the authorised scheme in accordance with the MCA recommendations contained within MGN371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues”. The ERCoP must include the identification of a point of contact for emergency response.

(2) The ERCoP must be implemented as approved.

(3) No authorised development seaward of MHWS must commence until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” and its annexes.

### **Reporting of engaged agents, contractors and vessels**

12.—(1) The undertaker must provide the name and function of any agent or contractor appointed to engage in the licensed activities to the MMO at least 2 weeks before the intended commencement of construction.

(2) Each week during the construction of the authorised scheme a completed Hydrographic Note H102 must be provided to the MMO listing the vessels currently and to be used in relation to the licensed activities.

(3) Any changes to the supplied details must be notified to the MMO in writing before the agent, contractor or vessel engages 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 and (except in the case of remotely-operated vehicles or vessels) must comply with sub-paragraphs (2) to (6).

(2) All motor powered vessels must be fitted with—

- (a) an electronic positioning aid to provide navigational data;
- (b) radar;
- (c) an echo-sounder; and
- (d) multi-channel VHF.

(3) No radio beacon or radar beacon operating on the marine frequency bands must be installed or used without the prior written approval of the Secretary of State.

(4) All vessels' names or identification must be clearly marked on the hull or superstructure.

(5) All communication on VHF working frequencies must be in English.

(6) No vessel must 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 9(b), submit details for written approval by the MMO of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report. The survey proposals must be in accordance with the principles set out in the In Principle Monitoring Plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position or will enable the validation or otherwise of key predictions in the environmental statement. The baseline report proposals must 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 must make clear what post-construction comparison is intended and the justification for this being required.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this Condition, where appropriate and necessary it is expected that the pre-construction surveys will comprise—

- (a) an appropriate survey to determine the location and reasonable extent of any benthic habitats of conservation, ecological or economic importance (including Annex 1 habitats) in whole or in part inside the areas within the Order limits in which it is proposed to carry out construction works;
- (b) appropriate high-resolution bathymetric surveys undertaken to International Hydrographic Organisation Order 1A standard and side-scan surveys of the areas within the Order limits in which it is proposed to carry out construction works, including a 500-metre buffer area around the site of each work. This must include the identification of sites of historic or archaeological interest (A1 and A3 receptors) and any unidentified anomalies larger than 5 metres in diameter (A2 receptors), which may require the

refinement, removal or introduction of archaeological exclusion zones and to confirm project-specific micro-siting requirements (for A2 receptors);

- (c) appropriate ornithological surveys to validate the predictions in the environmental statement concerning ornithological interests of relevance to the authorised scheme; and
- (d) appropriate surveys of sand eel within the Order limits in which it is proposed to carry out construction works, and any wider areas where appropriate, which are required to validate predictions in the environmental statement.

(3) The undertaker must carry out and complete the surveys to be undertaken under sub-paragraph (1) in a timescale which must be agreed with the MMO.

### **Construction monitoring**

**15.**—(1) The undertaker must, in discharging Condition 9(b), submit details for approval by the MMO of any proposed surveys or monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme.

(2) The details of the construction monitoring must be submitted at least 4 months before commencement of any survey works and provide the agreed reports in the agreed format in accordance with the agreed timetable. The survey proposals must be in accordance with the principles set out in the In Principle Monitoring Plan and must specify each survey's objectives. The construction surveys must comprise—

- (a) where driven or part-driven pile foundations (for each specific foundation type) are proposed to be used, measurements of noise generated by the installation of 1 pile from each of the first 4 structures with piled foundations, following which the MMO must determine whether further noise monitoring is required. The results of the initial noise measurements must be provided to the MMO within 6 weeks of the installation of the first relevant foundation piece. The assessment of this report by the MMO must determine whether any further noise monitoring is required;
- (b) vessel traffic monitoring by Automatic Identification System, including the provision of reports on the results of that monitoring periodically as requested by the MMO; and
- (c) appropriate ornithological surveys dependent on the outcomes of the pre-construction surveys, as agreed with the MMO in consultation with the relevant statutory nature conservation body.

### **Post-construction surveys**

**16.**—(1) The undertaker must, in discharging Condition 9(b), submit details for written approval by the MMO of the post-construction surveys proposed in sub-paragraph (2), including methodologies and timings, and a proposed format, content and timings for providing reports on the results at least 4 months before commencement of any survey works detailed within. The survey proposals must be in accordance with the principles set out in the In Principle Monitoring Plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position or will enable the validation or otherwise of key predictions in the environmental statement.

(2) Subject to receipt of specific proposals, it is expected that the post-construction surveys will comprise—

- (a) appropriate ornithological surveys to validate the predictions in the environmental statement concerning ornithological interests of relevance to the authorised scheme;
- (b) appropriate high-resolution bathymetric surveys undertaken to International Hydrographic Organisation Order 1A standard and side-scan sonar surveys around a sample of infrastructure locations that are considered appropriate to assess any changes in seabed topography. For this purpose, the undertaker must before the first such survey submit a desk-based assessment (which takes account of all factors which influence scour) to identify the sample of infrastructure locations that are considered appropriate with greatest potential for scour. The survey will be used to validate the desk-based

assessment. Further surveys may be required if there are significant differences between the modelled scour and recorded scour;

- (c) appropriate surveys of sand eel within the Order limits in which construction works were carried out, and any wider areas where appropriate;
- (d) dependent on the outcome of the surveys undertaken under Condition 14(2)(a), appropriate surveys to determine the effects of construction activity on any benthic habitats of conservation, ecological or economic importance (including Annex 1 habitats) in whole or in part inside the areas within the Order limits to validate predictions made in the environmental statement;
- (e) vessel traffic monitoring by Automatic Identification System totalling a maximum of 28 days taking account of seasonal variations in traffic patterns over 1 year, following the commencement of commercial operation. A report must be submitted to the MMO and the MCA following the end of the monitoring; and
- (f) appropriate surveys to determine change in size and form of the drill disposal mounds over the lifetime of the authorised scheme.

(3) The undertaker must carry out the surveys under sub-paragraph (1) and provide the reports in the agreed format in accordance with the timetable as agreed in writing with the MMO following consultation with the relevant statutory nature conservation body.

### **Post-construction maintenance plan**

**17.**—(1) A post-construction maintenance plan must be submitted for written approval by the MMO at least 4 months before the licensed activities are commissioned, based on the maintenance in the outline maintenance plan.

(2) An update to the post-construction maintenance plan must be submitted for approval every 3 years, or sooner in the event of any proposed major revision to planned maintenance activities or the adoption of any new technologies or techniques applicable to programmed maintenance.

(3) Maintenance must be carried out as approved.

### **Aids to navigation**

**18.**—(1) Before commencement of the authorised scheme, an aids to navigation management plan must be approved in writing by the MMO following consultation with Trinity House and MCA specifying the—

- (a) aids to navigation to be established from the commencement of the authorised scheme to the completion of decommissioning;
- (b) monitoring and reporting of the availability of aids to navigation; and
- (c) notifications and procedures for ensuring navigational safety following failures to aids to navigation.

(2) The licensed activities must be carried out in accordance with the plan approved under this Condition.

**19.** The undertaker must keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MHWS including—

- (a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within 5 working days of completion of construction of the authorised scheme.

**20.** The undertaker must notify Trinity House and the MMO of any failure of the aids to navigation, including timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the detection of any such failure.



**21.** 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 seaward of MHWS 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 following consultation with the MMO.

**22.** The undertaker must submit reports quarterly to the MMO and Trinity House detailing the working condition of aids to navigation. Reports may be requested more frequently by the MMO or Trinity House and must be submitted by the undertaker as specified.

**23.** In case of damage to, or destruction or decay of, the authorised scheme seaward of MHWS or any part of it, the undertaker must, as soon as possible and no later than 24 hours following the identification of damage, destruction or decay, notify Trinity House and the MMO. The undertaker must also lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House following consultation with the MMO.

### **Colour of authorised scheme**

**24.—**(1) The undertaker must colour all structures that are part of the authorised scheme seaward of MHWS yellow (colour code RAL 1023) from at least HAT to a height approved by the MMO following consultation with Trinity House.

(2) Details of the remainder of the structures must be submitted to and approved in writing by the MMO following consultation with Trinity House before commencement of the authorised scheme.

(3) The structures must be coloured in accordance with the approved details.

### **Amendments to plans, etc.**

**25.** Where any Condition requires licensed activities to be carried out in accordance with any programme, statement, plan, protocol, scheme, details or arrangements approved by the MMO, the approved programme, statement, plan, protocol, scheme, details or arrangements must be taken to include any amendments that may subsequently be approved in writing by the MMO (after consulting any person that the MMO is required to consult under the relevant Condition).

## **SCHEDULE 2**

Articles 2 and 39

### **Marine Licence 2: Project B Offshore (Generation – Works No. 1B and 2T)**

## **PART A**

### **Licensed activities**

#### **Interpretation**

**1.—**(1) In this licence—

“2004 Act” means the Energy Act 2004;

“2009 Act” means the Marine and Coastal Access Act 2009;

“Annex 1 habitat” means a habitat set out in Annex 1 to Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora;

“authorised deposits” means the substances and articles specified in paragraph 2(3);

“authorised scheme” means Works No. 1B and 2T described in paragraph 2 or any part or phase of those works;

“cable crossings” means the crossing of existing subsea cables and pipelines by the inter-array, interconnecting or export cables authorised by the Order together with physical protection measures including cable protection;

“cable protection” means any measures to protect cables and prevent loss of seabed sediment, for example by use of grout bags, protective aprons, mattresses, flow energy dissipation devices or rock and gravel burial;

“combined platform” means a single offshore platform combining 2 or more of the following—

- (a) an offshore collector platform;
- (b) an offshore converter platform;
- (c) an offshore accommodation or helicopter platform;

“commence” means the first carrying out of any part of the licensed activities except for pre-construction surveys and monitoring; and “commencement” must be construed accordingly;

“commercial operation” means the exporting, on a commercial basis, of electricity from the wind turbine generators comprised within the authorised scheme;

“Condition” means a condition in Part B;

“draft fisheries liaison plan” means the document certified as the draft fisheries liaison plan by the Secretary of State for the purposes of the Order;

“enforcement officer” means a person authorised to carry out enforcement duties under Chapter 3 of the 2009 Act;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order and submitted with the application together with any supplementary or further environmental information submitted in support of the application;

“gravity base foundation” means a foundation type which rests on the seabed and supports the wind turbine generator, meteorological station or offshore platform primarily due to its own weight and that of added ballast, with or without skirts or other additional fixings, which may include associated equipment including J-tubes and access platforms and separate topside connection structures or an integrated transition piece. (Sub-types for wind turbine generators and meteorological stations include conical gravity base and flat-based gravity base foundations. Sub-types for platforms include offshore platform conical or flat-base gravity base foundations, and offshore platform semi-submersible gravity base foundations);

“HAT” means highest astronomical tide;

“HVDC” means high voltage direct current;

“In Principle Monitoring Plan” means the document certified as the In Principle Monitoring Plan by the Secretary of State for the purposes of the Order;

“Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“licensed activities” means the activities specified in this Part;

“maintain” includes inspect, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule 1 (ancillary works) to the Order and any component part of any wind turbine generator, offshore platform, meteorological station, electricity or communication cable described in Part 1 of that Schedule (authorised development) (but not including the removal or replacement of foundations) to the extent outlined within the post-construction maintenance plan; and “maintenance” must be construed accordingly;

“MCA” means the Maritime and Coastguard Agency;

“meteorological mast” or “meteorological station” means a fixed or floating structure housing or incorporating equipment to measure wind speed and other meteorological and oceanographic characteristics, including a topside which may house electrical switchgear and communication equipment and associated equipment, and marking and lighting;

“MHWS” (mean high water springs) means the highest level which spring tides reach on average over a period of time;

“MMO” means the Marine Management Organisation;

“monopole foundation” means foundation options based around a single vertical pillar structure driven, drilled, or embedded into the seabed by means such as suction or gravity. This main support structure may change in diameter via tapers and abrupt steps. (Sub-types for wind turbine generators and meteorological stations include monopole with steel monopile footing, monopole with concrete monopile footing and monopole with a single suction-installed bucket footing);

“multi-leg foundation” means foundation options based around structures with several legs or footings. This includes jackets, tripods, and other structures which include multiple large tubulars, cross-bracing, or lattices. Multi-leg foundations may be fixed to the seabed by footings which are driven, drilled, screwed, jacked-up or embedded into the seabed by means such as suction or gravity. (Sub-types for wind turbine generators and meteorological stations include multi-legs with driven piles, drilled piles, screw piles, suction buckets and jack-up foundations. Sub-types for platforms include offshore platform jacket foundations (potentially using driven piles, suction buckets or screw piles) and offshore platform jack-up foundations);

“notice to mariners” includes any notice to mariners which may be issued by the Admiralty, Trinity House, Queen’s harbourmasters, government departments and harbour and pilotage authorities;

“offshore accommodation or helicopter platform” means a platform (either singly or as part of a combined platform) housing or incorporating some or all of the following: accommodation for staff during the construction, operation and decommissioning of the authorised scheme, landing facilities for vessels and helicopters, re-fuelling facilities, communication and control systems, electrical systems such as metering and control systems, J-tubes, small- and large-scale electrical power systems, auxiliary and uninterruptible power supplies, large-scale energy storage systems, standby electricity generation equipment, cranes, storage for waste and consumables including fuel, marking and lighting and other associated equipment and facilities;

“offshore collector platform” means a platform (either singly or as part of a combined platform) housing or incorporating electrical switchgear or electrical transformers, electrical systems such as metering and control systems, J-tubes, landing facilities for vessels and helicopters, re-fuelling facilities, accommodation for staff during the construction, operation and decommissioning of the authorised scheme, communication and control systems, auxiliary and uninterruptible power supplies, large-scale energy storage systems, standby electricity generation equipment, cranes, storage for waste and consumables including fuel, marking and lighting and other associated equipment and facilities;

“offshore converter platform” means a platform (either singly or as part of a combined platform) housing or incorporating HVDC electrical switchgear or electrical transformers and other equipment to enable HVDC transmission to be used to convey the power output of the multiple wind turbine generators to shore including electrical systems such as metering and control systems, J-tubes, landing facilities for vessels and helicopters, re-fuelling facilities, accommodation for staff during the construction, operation and decommissioning of the authorised scheme, communication and control systems, auxiliary and uninterruptible power supplies, large-scale energy storage systems, standby electricity generation equipment, cranes, storage for waste and consumables including fuel, marking and lighting and other associated equipment and facilities;

“offshore Order limits plan” means the plans certified as the offshore Order limits and grid coordinates plan by the Secretary of State for the purposes of the Order;

“offshore platform” means any of the following—

- (a) an offshore accommodation or helicopter platform;
- (b) an offshore collector platform;
- (c) an offshore converter platform;
- (d) a combined platform;

“onshore Order limits plans” means the plans certified as the onshore Order limits and grid co-ordinates plan by the Secretary of State for the purposes of the Order;

“Order” means the Dogger Bank Creyke Beck Offshore Wind Farm Order 2015;

“Order limits” means the limits shown on the offshore and onshore Order limits plans;

“outline maintenance plan” means the document certified as the outline maintenance plan by the Secretary of State for the purposes of the Order;

“scour protection” means protection against foundation scour and subsea damage, for example from trawling, through reinforcement measures and measures to prevent loss of seabed sediment around foundation bases. These measures include the use of bagged solutions filled with grout or other materials, protective aprons, mattresses, flow energy dissipation devices and rock and gravel burial;

“undertaker” means Doggerbank Project 4 Bizco Limited (company number 7914510) whose registered office is 55 Vastern Road, Reading, Berkshire RG1 8BU;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“wind turbine generator” means a structure comprising a tower, a rotor with 3 blades connected at the hub, a nacelle and ancillary electrical and other equipment which may include J-tubes, transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter transfer facilities and other associated equipment, fixed to a foundation.

(2) In this licence, a reference to any statute, order, regulation or similar instrument is a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) In this licence, unless otherwise indicated,—

- (a) all times are Greenwich Mean Time (GMT);
- (b) all co-ordinates are latitude and longitude decimal degrees to 6 decimal places. The datum system used is WGS84.

(4) Except where otherwise notified in writing by the relevant organisation, the primary point of contact with the organisations listed below, and the address for returns and correspondence, is—

(a) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle-upon-Tyne NE4 7YH

Email: [marine.consents@marinemanagement.org.uk](mailto:marine.consents@marinemanagement.org.uk)

Tel: 0300 123 1032;

(b) Trinity House

Tower Hill

London EC3N 4DH

Tel: 020 7481 6900;

- (c) United Kingdom Hydrographic Office  
Admiralty Way  
Taunton  
Somerset TA1 2DN  
Tel: 01823 337 900;
- (d) Maritime and Coastguard Agency  
Navigation Safety Branch  
Bay 2/04  
Spring Place  
105 Commercial Road  
Southampton SO15 1EG  
Tel: 023 8032 9191;
- (e) Centre for Environment, Fisheries and Aquaculture Science  
Pakefield Road  
Lowestoft  
Suffolk NR33 0HT  
Tel: 01502 562 244;
- (f) Natural England  
Foundry House  
3 Millsands  
Riverside Exchange  
Sheffield S3 8NH  
Tel: 0300 060 4911;
- (g) JNCC  
Inverdee House  
Baxter Street  
Aberdeen AB11 9QA  
Tel: 01224 266 550;
- (h) English Heritage  
37 Tanner Row  
York YO1 6WP  
Tel: 01904 601901.
- (5) For information only, the details of the local MMO office to the authorised scheme is—  
Marine Management Organisation  
Northern Marine Area  
Neville House  
Central Riverside  
Bell Street

North Shields  
Tyne and Wear NE30 1LJ  
Tel: 0191 257 4520.

### Details of licensed activities

2.—(1) This licence authorises the undertaker (and any agent or contractor acting on its behalf) to carry out the following licensable marine activities under Part 4 of the 2009 Act, subject to the Conditions—

- (a) the deposit at sea of the substances and articles specified in sub-paragraph (3);
- (b) the construction of works in or over the sea or on or under the sea bed including the removal, reconstruction or alteration of the position of subsea cables and pipelines; and
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation.

(2) Subject to sub-paragraph (7), such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 1B—

- (a) an offshore wind turbine generating station with a gross electrical output capacity of up to 1.2 gigawatts comprising up to 200 wind turbine generators each fixed to the seabed by monopole, multi-leg or gravity base type foundations, situated within the co-ordinates of the array area specified in Table 1B;

**Table 1B - Co-ordinates of array area**

<i>Point</i>	<i>Latitude (decimal degrees)</i>	<i>Longitude (decimal degrees)</i>
CBB-1	55.074509	1.505499
CBB-2	55.078127	1.557882
CBB-3	55.100307	1.673135
CBB-4	55.102152	1.854982
CBB-5	54.859236	1.861874
CBB-6	54.870965	1.473897
CBB-7	54.968002	1.488779
CBB-8	54.971992	1.488363

- (b) up to 7 offshore platforms comprising the following—
  - (i) up to 4 offshore collector platforms situated within the co-ordinates of the array area specified in Table 1B and being fixed to the seabed by multi-leg or gravity base type foundations;
  - (ii) 1 offshore converter platform situated within the co-ordinates of the array area specified in Table 1B and being fixed to the seabed by multi-leg or gravity base type foundations; and
  - (iii) up to 2 offshore accommodation or helicopter platforms situated within the co-ordinates of the array area specified in Table 1B and being fixed to the seabed by multi-leg or gravity base type foundations;

provided that any of the platforms comprised in Work No. 1B(b)(i) to (iii) may be co-joined to create a combined platform fixed to the seabed by multi-leg or gravity base type foundations;

- (c) up to 5 meteorological stations situated within the co-ordinates of the array area specified in Table 1B either fixed to the seabed by monopole, multi-leg or gravity base type foundations or utilising a floating support structure anchored to the seabed; and

- (d) a network of cables for the transmission of electricity and electronic communications laid on or beneath the seabed including cable crossings between—
  - (i) any of the wind turbine generators comprising Work No. 1B(a);
  - (ii) any of the wind turbine generators comprising Work No. 1B(a) and any of the works comprising Work No. 1B(b) or (c);
  - (iii) any of the works comprising Work No. 1B(b) and any of the works comprising Work No. 1B(c); and
  - (iv) the offshore converter platform comprising Work No. 1B(b)(ii) or the combined platforms referred to in Work No. 1B(b) and the export cable route in Work No. 2BA or 2BC (as defined in the Order);

Work No. 2T – a temporary work area for vessels to carry out intrusive activities during construction, including vessels requiring anchor spreads alongside the cable corridors; and

Ancillary works in connection with the above-mentioned works comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised scheme;
- (b) temporary or permanent buoys, beacons, fenders and other navigational warning or ship impact protection works;
- (c) temporary works for the protection of land or structures affected by the authorised scheme;
- (d) cable protection, scour protection or dredging; and
- (e) cable route preparation works including boulder removal and obstruction clearance, dredging and pre-sweeping.

(3) The substances or articles authorised for deposit at sea are—

- (a) iron, steel, aluminium and titanium;
- (b) stone and rock;
- (c) concrete and grout;
- (d) sand and gravel;
- (e) plastic and synthetic;
- (f) material extracted from within the offshore Order limits during construction drilling and seabed preparation for foundation works and cable sandwave preparation works; and
- (g) marine coatings, other chemicals and timber.

(4) Subject to the Conditions, this licence authorises the disposal of up to 1,107,411 cubic metres of material of natural origin within Work No. 1B produced during construction drilling and seabed preparation for foundation works and cable sandwave preparation works.

(5) The undertaker must inform the MMO of the location and quantities of material disposed of each month pursuant to sub-paragraph (4) by submission of a disposal return by 31st January each year for the months August to January inclusive, and by 31st July each year for the months February to July inclusive.

(6) This licence does not permit the decommissioning of the authorised scheme. No decommissioning activity must commence until a decommissioning programme has been approved by the Secretary of State under section 106 of the 2004 Act. Furthermore, at least 4 months before carrying out any such works, the undertaker must notify the MMO of the proposed decommissioning activity to establish whether a marine licence is required for such works.

(7) This licence and Marine Licence 4 (as defined in the Order), when taken together, do not authorise the construction of more than 1 Work No. 1B or the construction of Work No. 1B in excess of the maximum parameters for that Work set out in Schedule 1 to the Order.

## PART B

### Conditions

#### Detailed offshore design parameters

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

- (a) exceed a height of 315 metres when measured from HAT to the tip of the vertical blade;
- (b) exceed a rotor diameter of 280 metres;
- (c) be less than a multiple of 6 times the rotor diameter from the nearest wind turbine generator in any direction being not less than 700 metres measured between turbines; or
- (d) have a distance of less than 26 metres between the lowest point of the rotating blade of the wind turbine generator and the level of the sea at HAT.

(2) The wind turbine generators comprised in Work No. 1B must be of such a size that if they were installed to the maximum permitted gross generating capacity specified for that work the total rotor-swept area would not exceed 4.35 square kilometres.

(3) Wind turbine generator and meteorological mast foundation structures forming part of the authorised scheme must be 1 of the following foundation options: monopole, multi-leg or gravity base.

(4) No wind turbine generator or meteorological mast foundation structure employing a footing of driven piles forming part of the authorised scheme must—

- (a) have more than 6 driven piles;
- (b) in the case of single pile structures, have a pile diameter of greater than 10 metres or employ a hammer energy during installation of greater than 3,000 kilojoules; or
- (c) in the case of 2 or more pile structures, have a pile diameter of greater than 3.5 metres and employ a hammer energy during installation of greater than 2,300 kilojoules.

(5) The foundations for wind turbine generators must be in accordance with the wave reflection coefficient values as set out at Fig 3.16 within Chapter 5 and Appendix 5.B of the environmental statement.

(6) No wind turbine generator foundation must have a seabed footprint area of subsea scour protection (excluding foundation footprint) of more than 3,777 square metres.

(7) The foundations for wind turbine generators and meteorological stations must not exceed the dimensions set out below—

<i>Foundation type (monopole, multi-leg or gravity base foundations)</i>	<i>Maximum width of main supporting structure in metres</i>	<i>Maximum seabed footprint area per foundation (excluding scour protection) in square metres</i>
Wind turbine generator and meteorological station foundation	61	2,376

(8) The total seabed footprint area of subsea scour protection for wind turbine generator foundations (excluding foundation footprint) must not exceed 0.7554 square kilometres within Work No. 1B.

(9) The volume of subsea scour protection material for wind turbine generator foundations within Work No. 1B must not exceed 1,084,800 cubic metres.

(10) The total cable protection for HVAC inter-array cables (excluding cable crossings) must not exceed an area of 0.5557 square kilometres or a volume of 217,850 cubic metres within Work No. 1B.



(11) References to the location of a wind turbine generator are references to the centroid point at the base of the turbine.

(12) No lattice tower forming part of a meteorological station must exceed a height of 315 metres above HAT.

(13) The length of HVAC cables comprising Work No. 1B must not exceed 950 kilometres.

4.—(1) The total number of offshore platforms forming part of the authorised scheme must not exceed 7 comprising—

- (a) up to 4 offshore collector platforms;
- (b) up to 1 offshore converter platform;
- (c) up to 2 offshore accommodation or helicopter platforms,

provided that any of the platforms comprised in paragraphs (a) to (c) may be co-joined to create a combined platform fixed to the seabed by multi-leg or gravity base type foundations.

(2) The dimensions of any offshore collector platforms forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed 75 metres in length, 75 metres in width and 85 metres in height above HAT.

(3) The dimensions of any offshore converter platform forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed 125 metres in length, 100 metres in width and 105 metres in height above HAT.

(4) The dimensions of any offshore accommodation or helicopter platforms forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed 125 metres in length, 100 metres in width and 105 metres in height above HAT.

(5) The dimensions of any combined platform forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed the total footprint of the individual platforms incorporated within it.

(6) Offshore platform foundation structures forming part of the authorised scheme must be 1 of the following foundation options: gravity base or multi-leg.

(7) No offshore platform foundation structure employing a footing of driven piles forming part of the authorised scheme must—

- (a) have more than 24 driven piles; or
- (b) have a pile diameter of greater than 2.744 metres or employ a hammer energy during installation of greater than 1,900 kilojoules.

(8) No offshore platform foundation must have a seabed footprint area of subsea scour protection (excluding foundation footprint) of more than 8,742 square metres.

(9) The foundations for offshore platforms must not exceed the dimensions set out below—

<i>Foundation type</i>	<i>Offshore collector platform (multi-leg or gravity base foundation)</i>	<i>Offshore converter platform (multi-leg or gravity base foundation)</i>	<i>Offshore accommodation or helicopter platform (multi-leg or gravity base foundation)</i>
Maximum seabed footprint area per foundation (excluding scour protection) in square metres	5,625	12,500	12,500

(10) The number of vessels actively carrying out impact piling as part of the installation of driven pile foundations for the authorised scheme must at no time exceed 2 within Work No. 1B.

## Layout rules

5.—(1) The positions of wind turbine generators and offshore platforms must be arrayed in accordance with parameters applicable to Work No. 1B specified in Condition 3 and the principles within section 5.2 of Chapter 5 of the environmental statement.

(2) No construction of any wind turbine generator or offshore platform forming part of the authorised scheme must commence until the MMO, in consultation with the MCA, has approved their general layout arrangements. These layout arrangements must specify the physical point of connection between generation and transmission assets for Project B (as defined in the Order).

(3) The construction of the wind turbine generators and offshore platforms must be carried out as approved.

## Notifications and inspections

6.—(1) The undertaker must ensure that—

- (a) before any licensed activities are carried out under this licence, the undertaker informs the MMO of—
  - (i) the name of the person undertaking the licensed activities;
  - (ii) the works being undertaken pursuant to this licence comprising those works necessary up to the point of connection with the transmission assets;
  - (iii) the maximum total area and volume for any cable protection for HVAC inter-array cables and HVAC inter-platform cables to be constructed within the array area pursuant to this licence; and
  - (iv) the maximum total area and volume for any cable protection to be constructed within the array area pursuant to this licence;
- (b) any works notified under this Condition when combined with any works notified under Condition 6 of Marine Licence 1 (as defined in the Order) and Condition 5 of Marine Licences 3 and 4 (as defined in the Order) do not exceed the maximum parameters set out in Schedule 1 to the Order;
- (c) 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; and
- (d) within 28 days of receipt of a copy of this licence the persons referred to in paragraph (c) provide a completed confirmation form to the MMO confirming that they have read and will comply with the terms of this licence.

(2) Only the 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 are to be made.

(4) The documents referred to in sub-paragraph (1)(c) must be available for inspection by an enforcement officer at all reasonable times at the locations set out in sub-paragraph (3)(b).

(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 5 working days before commencement of the licensed activities or any phase of them.

(7) Before commencement of the licensed activities or any phase 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 phase.

(8) The undertaker must ensure that a notice to mariners is issued at least 10 working days before commencement of the licensed activities or any phase of them advising of the commencement date of Work No. 1B 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 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 9(b). Copies of all notices must be provided to the MMO.

(10) The undertaker must notify—

- (a) the United Kingdom Hydrographic Office at least 2 weeks before commencement, and no later than 2 weeks following completion, of the authorised scheme in order that all necessary amendments to nautical charts are made; and
- (b) the MMO, MCA and Trinity House once the authorised scheme is completed and any required lighting or marking has been established.

### **Chemicals, drilling and debris**

7.—(1) All chemicals used in the construction of the authorised scheme, including any chemical agents placed within any monopile or other foundation structure void, must be selected from the list of notified chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002.

(2) The undertaker must ensure that any coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by Health and Safety Executive or the Environment Agency pollution prevention control guidelines. Any spillages must be reported to the MMO marine pollution response team within the timeframes specified in the marine pollution contingency plan.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must 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 seaward of MHWS is removed on completion of the authorised scheme.

(6) All dropped objects must be reported to the MMO using the dropped object form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of a dropped object form, the MMO may require side-scan sonar surveys to be carried out by the undertaker across a reasonable area of search agreed with the MMO where construction works and related activities have been carried out. The MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so. Representatives of the Holderness Fishing Industry Group must be invited to send a representative to be present during the survey.

(7) *This condition has been deleted*

(8) *This condition has been deleted*

## **Force majeure**

8. 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 otherwise than in accordance with Condition 10(2) because the safety of human life or the vessel is threatened—

- (a) within 48 hours full details of the circumstances of the deposit must be notified to the MMO; and
- (b) at the written request of the MMO, the unauthorised deposits must be removed at the expense of the undertaker.

## **Pre-construction plans and documentation**

9. The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO—

- (a) a plan to be agreed in writing with the MMO following consultation with Trinity House and the MCA which shows—
  - (i) the number, specifications and dimensions of the wind turbine generators;
  - (ii) the proposed location, including grid co-ordinates and choice of foundation types for all wind turbine generators, offshore platforms and meteorological stations;
  - (iii) the dimensions of all monopole, multi-leg and gravity base foundations, if used; and
  - (iv) the proposed layout of HVAC cables,to ensure conformity with the description of Work No. 1B and compliance with Conditions 3 to 5;
- (b) a detailed construction and monitoring programme to include details of—
  - (i) the proposed construction commencement date;
  - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works; and
  - (iii) proposed pre-construction surveys, a proposed format and content for a baseline report, construction monitoring, post-construction monitoring and related reporting in accordance with Conditions 14, 15 and 16. The pre-construction survey programme and all pre-construction survey methodologies must be submitted to the MMO for written approval at least 4 months before commencement of any survey works detailed within;
- (c) a construction method statement in accordance with the construction methods assessed in the environmental statement to include details of—
  - (i) drilling methods and disposal of drill arisings;
  - (ii) turbine, meteorological mast and platform location and installation, including scour protection and foundations;
  - (iii) cable installation;
  - (iv) impact piling including soft start procedures;
  - (v) the source of rock material used in construction and method to minimise contaminants and fines;
  - (vi) contractors;
  - (vii) vessels; and
  - (viii) associated works;
- (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 and disposal arrangements including arrangements to ensure no waste concrete slurry or wash water from concrete or cement work is discharged;
- (iv) the fisheries liaison officer appointed by the undertaker (to be notified to the District Marine Officer for the MMO's Northern District). Evidence of liaison must be collated so that signatures of attendance at meetings, agenda and minutes of meetings with the fishing industry can be provided to the MMO if requested; and
- (v) a fisheries liaison plan in accordance with the draft fisheries liaison plan to include information on liaison with the fishing industry (including by the fisheries liaison officer referred to in sub-paragraph (iv)) and a co-existence plan;
- (e) a marine mammal mitigation protocol, the intention of which is to prevent, amongst other things, injury to marine mammals, primarily auditory injury within the vicinity of any piling, and appropriate monitoring surveys in accordance with the In Principle Monitoring Plan to be agreed in writing with the MMO in consultation with the relevant statutory nature conservation body;
- (f) a cable specification and installation plan following consultation with the relevant statutory nature conservation body, to include—
  - (i) technical specification of 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;
  - (ii) a staged cable-laying plan for the Order limits, incorporating a burial risk assessment to ascertain suitable burial depths and cable-laying techniques;
  - (iii) a scour protection management and cable protection plan providing details of the need, type, sources, quality and installation methods for scour protection and cable protection; and
  - (iv) details of the methodology and extent of post-lay surveys, to confirm burial depths; and
- (g) a written scheme of archaeological investigation in relation to offshore areas within the Order limits in accordance with Chapter 18 Appendix B of the environmental statement, industry good practice and after discussions with English Heritage to include—
  - (i) details of the 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) within 3 months of any surveys being completed a timetable to be submitted to the MMO setting out the timeframe for the analysis and reporting of survey data;
  - (iv) delivery of any mitigation including, where necessary, archaeological exclusion zones;
  - (v) monitoring during and post-construction, including a conservation programme for finds;
  - (vi) archiving of archaeological material including ensuring that a copy of any agreed archaeological report is deposited with the English Heritage archive by submitting an English Heritage OASIS form with a digital copy of the report; and
  - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme.

**10.—(1)** Each programme, statement, plan, protocol, scheme or details required to be approved under Condition 9, and the arrangements required to be approved under Condition 5, must be

submitted for approval at least 4 months before the intended commencement of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The licensed activities must be carried out in accordance with the programme, statement, plan, protocol, scheme or details approved under Condition 9.

### **Offshore safety management**

**11.**—(1) Offshore works must not commence until the MMO, in consultation with the MCA, has given written approval for an Emergency Response and Co-operation Plan (“ERCoP”) which includes full details of the ERCoP for the construction, operation and decommissioning phases of the authorised scheme in accordance with the MCA recommendations contained within MGN371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues”. The ERCoP must include the identification of a point of contact for emergency response.

(2) The ERCoP must be implemented as approved.

(3) No authorised development seaward of MHWS must commence until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” and its annexes.

### **Reporting of engaged agents, contractors and vessels**

**12.**—(1) The undertaker must provide the name and function of any agent or contractor appointed to engage in the licensed activities to the MMO at least 2 weeks before the intended commencement of construction.

(2) Each week during the construction of the authorised scheme a completed Hydrographic Note H102 must be provided to the MMO listing the vessels currently and to be used in relation to the licensed activities.

(3) Any changes to the supplied details must be notified to the MMO in writing before the agent, contractor or vessel engages 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 and (except in the case of remotely-operated vehicles or vessels) must comply with sub-paragraphs (2) to (6).

(2) All motor powered vessels must be fitted with—

- (a) an electronic positioning aid to provide navigational data;
- (b) radar;
- (c) an echo-sounder; and
- (d) multi-channel VHF.

(3) No radio beacon or radar beacon operating on the marine frequency bands must be installed or used without the prior written approval of the Secretary of State.

(4) All vessels’ names or identification must be clearly marked on the hull or superstructure.

(5) All communication on VHF working frequencies must be in English.

(6) No vessel must 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 9(b), submit details for written approval by the MMO of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report. The survey proposals must be in accordance with the principles set out in the In Principle Monitoring Plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position or will enable the validation or otherwise of key predictions in the environmental statement. The baseline report proposals must 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 must make clear what post-construction comparison is intended and the justification for this being required.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this Condition, where appropriate and necessary it is expected that the pre-construction surveys will comprise—

- (a) an appropriate survey to determine the location and reasonable extent of any benthic habitats of conservation, ecological or economic importance (including Annex 1 habitats) in whole or in part inside the areas within the Order limits in which it is proposed to carry out construction works;
- (b) appropriate high-resolution bathymetric surveys undertaken to International Hydrographic Organisation Order 1A standard and side-scan surveys of the areas within the Order limits in which it is proposed to carry out construction works, including a 500-metre buffer area around the site of each work. This must include the identification of sites of historic or archaeological interest (A1 and A3 receptors) and any unidentified anomalies larger than 5 metres in diameter (A2 receptors), which may require the refinement, removal or introduction of archaeological exclusion zones and to confirm project-specific micro-siting requirements (for A2 receptors);
- (c) appropriate ornithological surveys to validate the predictions in the environmental statement concerning ornithological interests of relevance to the authorised scheme; and
- (d) appropriate surveys of sand eel within the Order limits in which it is proposed to carry out construction works, and any wider areas where appropriate which are required to validate predictions in the environmental statement.

(3) The undertaker must carry out and complete the surveys to be undertaken under subparagraph (1) in a timescale which must be agreed with the MMO.

### **Construction monitoring**

**15.**—(1) The undertaker must, in discharging Condition 9(b), submit details for approval by the MMO of any proposed surveys or monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme.

(2) The details of the construction monitoring must be submitted at least 4 months before commencement of any survey works and provide the agreed reports in the agreed format in accordance with the agreed timetable. The survey proposals must be in accordance with the principles set out in the In Principle Monitoring Plan and must specify each survey's objectives. The construction surveys must comprise—

- (a) where driven or part-driven pile foundations (for each specific foundation type) are proposed to be used, measurements of noise generated by the installation of 1 pile from each of the first 4 structures with piled foundations, following which the MMO must determine whether further noise monitoring is required. The results of the initial noise measurements must be provided to the MMO within 6 weeks of the installation of the first relevant foundation piece. The assessment of this report by the MMO must determine whether any further noise monitoring is required;
- (b) vessel traffic monitoring by Automatic Identification System, including the provision of reports on the results of that monitoring periodically as requested by the MMO; and

- (c) appropriate ornithological surveys dependent on the outcomes of the pre-construction surveys, as agreed with the MMO in consultation with the relevant statutory nature conservation body.

### **Post-construction surveys**

16.—(1) The undertaker must, in discharging Condition 9(b), submit details for written approval by the MMO of the post-construction surveys proposed in sub-paragraph (2), including methodologies and timings, and a proposed format, content and timings for providing reports on the results at least 4 months before commencement of any survey works detailed within. The survey proposals must be in accordance with the principles set out in the In Principle Monitoring Plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position or will enable the validation or otherwise of key predictions in the environmental statement.

(2) Subject to receipt of specific proposals, it is expected that the post-construction surveys will comprise—

- (a) appropriate ornithological surveys to validate the predictions in the environmental statement concerning ornithological interests of relevance to the authorised scheme;
- (b) appropriate high-resolution bathymetric surveys undertaken to International Hydrographic Organisation Order 1A standard and side-scan sonar surveys around a sample of infrastructure locations that are considered appropriate to assess any changes in seabed topography. For this purpose, the undertaker must before the first such survey submit a desk-based assessment (which takes account of all factors which influence scour) to identify the sample of infrastructure locations that are considered appropriate with greatest potential for scour. The survey will be used to validate the desk-based assessment. Further surveys may be required if there are significant differences between the modelled scour and recorded scour;
- (c) appropriate surveys of sand eel within the Order limits in which construction works were carried out, and any wider areas where appropriate;
- (d) dependent on the outcome of the surveys undertaken under Condition 14(2)(a), appropriate surveys to determine the effects of construction activity on any benthic habitats of conservation, ecological or economic importance (including Annex 1 habitats) in whole or in part inside the areas within the Order limits to validate predictions made in the environmental statement;
- (e) vessel traffic monitoring by Automatic Identification System totalling a maximum of 28 days taking account of seasonal variations in traffic patterns over 1 year, following the commencement of commercial operation. A report must be submitted to the MMO and the MCA following the end of the monitoring; and
- (f) appropriate surveys to determine change in size and form of the drill disposal mounds over the lifetime of the authorised scheme.

(3) The undertaker must carry out the surveys under sub-paragraph (1) and provide the reports in the agreed format in accordance with the timetable as agreed in writing with the MMO following consultation with the relevant statutory nature conservation body.

### **Post-construction maintenance plan**

17.—(1) A post-construction maintenance plan must be submitted for written approval by the MMO at least 4 months before the licensed activities are commissioned, based on the maintenance in the outline maintenance plan.

(2) An update to the post-construction maintenance plan must be submitted for approval every 3 years, or sooner in the event of any proposed major revision to planned maintenance activities or the adoption of any new technologies or techniques applicable to programmed maintenance.

(3) Maintenance must be carried out as approved.



## **Aids to navigation**

**18.**—(1) Before commencement of the authorised scheme, an aids to navigation management plan must be approved in writing by the MMO following consultation with Trinity House and MCA specifying the—

- (a) aids to navigation to be established from the commencement of the authorised scheme to the completion of decommissioning;
- (b) monitoring and reporting of the availability of aids to navigation; and
- (c) notifications and procedures for ensuring navigational safety following failures to aids to navigation.

(2) The licensed activities must be carried out in accordance with the plan approved under this Condition.

**19.** The undertaker must keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MHWS including—

- (a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within 5 working days of completion of construction of the authorised scheme.

**20.** The undertaker must notify Trinity House and the MMO of any failure of the aids to navigation, including timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the detection of any such failure.

**21.** 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 seaward of MHWS 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 following consultation with the MMO.

**22.** The undertaker must submit reports quarterly to the MMO and Trinity House detailing the working condition of aids to navigation. Reports may be requested more frequently by MMO or Trinity House and must be submitted by the undertaker as specified.

**23.** In case of damage to, or destruction or decay of, the authorised scheme seaward of MHWS or any part of it, the undertaker must as soon as possible and no later than 24 hours following the identification of damage, destruction or decay, notify Trinity House and MMO. The undertaker must also lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House following consultation with the MMO.

## **Colour of authorised scheme**

**24.**—(1) The undertaker must colour all structures that are part of the authorised scheme seaward of MHWS yellow (colour code RAL 1023) from at least HAT to a height approved by the MMO following consultation with Trinity House.

(2) Details of the remainder of the structures must be submitted to and approved in writing by the MMO following consultation with Trinity House before commencement of the authorised scheme.

(3) The structures must be coloured in accordance with the approved details.

## **Amendments to plans, etc.**

**25.** Where any Condition requires licensed activities to be carried out in accordance with any programme, statement, plan, protocol, scheme, details or arrangements approved by the MMO, the approved programme, statement, plan, protocol, scheme, details or arrangements must be taken to

include any amendments that may subsequently be approved in writing by the MMO (after consulting any person that the MMO is required to consult under the relevant Condition).

## SCHEDULE 3

Articles 2 and 39

### Marine Licence 3: Project A Offshore (Transmission – Works No. 2A, 3A and 2T)

#### PART A

##### Licensed activities

#### Interpretation

1.—(1) In this licence—

“2004 Act” means the Energy Act 2004;

“2009 Act” means the Marine and Coastal Access Act 2009;

“Annex 1 habitat” means a habitat set out in Annex 1 to Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora;

“authorised deposits” means the substances and articles specified in paragraph 2(3);

“authorised scheme” means Works No. 1A, 2A, 3A and 2T described in paragraph 2 or any part or phase of those works;

“cable crossings” means the crossing of existing subsea cables and pipelines by the inter-array, interconnecting or export cables authorised by the Order together with physical protection measures including cable protection;

“cable protection” means any measures to protect cables and prevent loss of seabed sediment, for example by use of grout bags, protective aprons, mattresses, flow energy dissipation devices or rock and gravel burial;

“combined platform” means a single offshore platform constructed in an array area comprising 2 or more of the following—

- (a) an offshore collector platform;
- (b) an offshore converter platform;
- (c) an offshore accommodation or helicopter platform;

“commence” means the first carrying out of any part of the licensed activities except for the pre-construction surveys and monitoring; and “commencement” must be construed accordingly;

“Condition” means a condition in Part B;

“draft fisheries liaison plan” means the document certified as the draft fisheries liaison plan by the Secretary of State for the purposes of the Order;

“enforcement officer” means a person authorised to carry out enforcement duties under Chapter 3 of the 2009 Act;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order and submitted with the application together with any supplementary or further environmental information submitted in support of the application;

“gravity base foundation” means a foundation type which rests on the seabed and supports the wind turbine generator, meteorological station or offshore platform primarily due to its own

weight and that of added ballast, with or without skirts or other additional fixings, which may include associated equipment including J-tubes and access platforms and separate topside connection structures or an integrated transition piece. (Sub-types for wind turbine generators and meteorological stations include conical gravity base and flat-based gravity base. Sub-types for platforms include offshore platform conical or flat-base gravity base foundations and offshore platform semi-submersible gravity base foundations);

“HAT” means highest astronomical tide;

“HVAC” means high voltage alternating current;

“HVDC” means high voltage direct current;

“In Principle Monitoring Plan” means the document certified as the In Principle Monitoring Plan by the Secretary of State for the purposes of the Order;

“Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“licensed activities” means the activities specified in this Part;

“maintain” includes inspect, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule 1 (ancillary works) to the Order and any component part of any offshore platform, meteorological station, electricity or communication cable described in Part 1 of that Schedule (authorised development) (but not including the removal or replacement of foundations) to the extent outlined within the post-construction maintenance plan; and “maintenance” must be construed accordingly;

“MCA” means the Maritime and Coastguard Agency;

“MHWS” (mean high water springs) means the highest level which spring tides reach on average over a period of time;

“MLWS” (mean low water springs) means the average of the low water heights occurring at the time of spring tides;

“MMO” means the Marine Management Organisation;

“multi-leg foundation” means foundation options based around structures with several legs or footings. This includes jackets, tripods, and other structures which include multiple large tubulars, cross-bracing, or lattices. Multi-leg foundations may be fixed to the seabed by footings which are driven, drilled, screwed, jacked-up or embedded into the seabed by means such as suction or gravity. (Sub-types for wind turbine generators and meteorological stations include multi-legs with driven piles, drilled piles, screw piles, suction buckets or jack-up foundations. Sub-types for platforms include offshore platform jacket foundations (potentially using driven piles, suction buckets or screw piles) and offshore platform jack-up foundations);

“notice to mariners” includes any notice to mariners which may be issued by the Admiralty, Trinity House, Queen’s harbourmasters, government departments and harbour and pilotage authorities;

“offshore collector platform” means a platform (either singly or as part of a combined platform) housing or incorporating electrical switchgear or electrical transformers, electrical systems such as metering and control systems, J-tubes, landing facilities for vessels and helicopters, re-fuelling facilities, accommodation for staff during the construction, operation and decommissioning of the authorised scheme, communication and control systems, auxiliary and uninterruptible power supplies, large-scale energy storage systems, standby electricity generation equipment, cranes, storage for waste and consumables including fuel, marking and lighting and other associated equipment and facilities;

“offshore converter platform” means a platform (either singly or as part of a combined platform) housing or incorporating HVDC electrical switchgear or electrical transformers and other equipment to enable HVDC transmission to be used to convey the power output of the multiple wind turbine generators to shore including electrical systems such as metering and control systems, J-tubes, landing facilities for vessels and helicopters, re-fuelling facilities, accommodation for staff during the construction, operation and decommissioning of the authorised scheme, communication and control systems, auxiliary and uninterruptible power

supplies, large-scale energy storage systems, standby electricity generation equipment, cranes, storage for waste and consumables including fuel, marking and lighting and other associated equipment and facilities;

“offshore Order limits plan” means the plans certified as the offshore Order limits and grid co-ordinates plan by the Secretary of State for the purposes of the Order;

“offshore platform” means any of the following—

- (a) an offshore accommodation or helicopter platform;
- (b) an offshore collector platform;
- (c) an offshore converter platform;
- (d) a combined platform;

“onshore Order limits plan” means the plans certified as the onshore Order limits and grid co-ordinates plan by the Secretary of State for the purposes of the Order;

“Order” means the Dogger Bank Creyke Beck Offshore Wind Farm Order 2015;

“Order limits” means the limits shown on the offshore and onshore Order limits plans;

“outline maintenance plan” means the document certified as the outline maintenance plan by the Secretary of State for the purposes of the Order;

“scour protection” means protection against foundation scour and subsea damage, for example from trawling, through reinforcement measures and measures to prevent loss of seabed sediment around foundation bases. These measures include the use of bagged solutions filled with grout or other materials, protective aprons, mattresses, flow energy dissipation devices and rock and gravel burial;

“undertaker” means Doggerbank Project 1 Bizco Limited (company number 7791991) whose registered office is 55 Vastern Road, Reading, Berkshire RG1 8BU;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water.

(2) In this licence, a reference to any statute, order, regulation or similar instrument is a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) In this licence, unless otherwise indicated,—

- (a) all times are Greenwich Mean Time (GMT);
- (b) all co-ordinates are latitude and longitude decimal degrees to 6 decimal places. The datum system used is WGS84.

(4) Except where otherwise notified in writing by the relevant organisation, the primary point of contact with the organisations listed below, and the address for returns and correspondence, is—

- (a) Marine Management Organisation

Marine Licensing Team

Lancaster House

Hampshire Court

Newcastle-upon-Tyne NE4 7YH

Email: [marine.consents@marinemanagement.org.uk](mailto:marine.consents@marinemanagement.org.uk)

Tel: 0300 123 1032;

- (b) Trinity House

Tower Hill

London EC3N 4DH

Tel: 020 7481 6900;

(c) United Kingdom Hydrographic Office

Admiralty Way

Taunton

Somerset TA1 2DN

Tel: 01823 337 900;

(d) Maritime and Coastguard Agency

Navigation Safety Branch

Bay 2/04

Spring Place

105 Commercial Road

Southampton SO15 1EG

Tel: 023 8032 9191;

(e) Centre for Environment, Fisheries and Aquaculture Science

Pakefield Road

Lowestoft

Suffolk NR33 0HT

Tel: 01502 562 244;

(f) Natural England

Foundry House

3 Millsands

Riverside Exchange

Sheffield S3 8NH

Tel: 0300 060 4911;

(g) JNCC

Inverdee House

Baxter Street

Aberdeen AB11 9QA

Tel: 01224 266 550;

(h) English Heritage

37 Tanner Row

York YO1 6WP

Tel: 01904 601901.

(5) For information only, the details of the local MMO office to the authorised scheme is—

Marine Management Organisation

Northern Marine Area

Neville House

Central Riverside

Bell Street  
 North Shields  
 Tyne and Wear NE30 1LJ  
 Tel: 0191 257 4520.

**Details of licensed activities**

2.—(1) This licence authorises the undertaker (and any agent or contractor acting on its behalf) to carry out the following licensable marine activities under Part 4 of the 2009 Act, subject to the Conditions—

- (a) the deposit at sea of the substances and articles specified in sub-paragraph (3);
- (b) the construction of works in or over the sea or on or under the sea bed including the removal, reconstruction or alteration of the position of subsea cables and pipelines; and
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation.

(2) Subject to sub-paragraphs (5) and (6), such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 1A—

- (a) an offshore wind turbine generating station with a gross electrical output capacity of up to 1.2 gigawatts comprising up to 200 wind turbine generators each fixed to the seabed by monopole, multi-leg or gravity base type foundations situated within the co-ordinates of the array area specified in the Table 1A;

**Table 1A - Co-ordinates of array area**

<i>Point</i>	<i>Latitude (decimal degrees)</i>	<i>Longitude (decimal degrees)</i>
CBA-1	54.835241	1.633573
CBA-2	54.838412	2.174407
CBA-3	54.808700	2.227327
CBA-4	54.659286	1.976949
CBA-5	54.741685	1.632884

- (b) up to 7 offshore platforms comprising the following—
  - (i) up to 4 offshore collector platforms situated within the co-ordinates of the array area specified in Table 1A and being fixed to the seabed by multi-leg or gravity base type foundations;
  - (ii) 1 offshore converter platform situated within the co-ordinates of the array area specified in Table 1A and being fixed to the seabed by multi-leg or gravity base type foundations; and
  - (iii) up to 2 offshore accommodation or helicopter platforms situated within the co-ordinates of the array area specified in Table 1A and being fixed to the seabed by multi-leg or gravity base type foundations,
 provided that any of the platforms comprised in Work No. 1A(b)(i) to (iii) may be co-joined to create a combined platform fixed to the seabed by multi-leg or gravity base type foundations;
- (c) up to 5 meteorological stations situated within the co-ordinates of the array area specified in Table 1A either fixed to the seabed by monopole, multi-leg or gravity base type foundations or utilising a floating support structure anchored to the seabed; and
- (d) a network of cables for the transmission of electricity and electronic communications laid on or beneath the seabed including cable crossings between—

- (i) any of the wind turbine generators comprising Work No. 1A(a);
- (ii) any of the wind turbine generators comprising Work No. 1A(a) and any of the works comprising Work No. 1A(b) or (c); and
- (iii) any of the works comprising Work No. 1A(b) to and any of the works comprising Work No. 1A(c); and
- (iv) the offshore converter platform comprising Work No. 1A(b)(ii) or the combined platforms referred to in Work No. 1A(b) and the export cable route in Work No. 2A;

Work No. 2A – up to 2 export cables for the transmission of HVDC electricity, together with fibre-optic cables for the transmission of electronic communications, laid on or beneath the seabed between the offshore converter platform comprising Work No. 1A(b)(ii) or the combined platforms referred to in Work No. 1A(b) and Work No. 3A including cable crossings and situated within the co-ordinates of the export cable corridor area specified in the offshore Order limits plan;

Work No. 3A – up to 2 export cables for the transmission of HVDC electricity together with fibre-optic cables for the transmission of electronic communications between MLWS and MHWS and connecting Work No. 2A with Work No. 4A;

Work No. 2T – a temporary work area for vessels to carry out intrusive activities during construction, including vessels requiring anchor spreads alongside the cable corridors; and

Ancillary works in connection with the above-mentioned works comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised scheme;
- (b) temporary or permanent buoys, beacons, fenders and other navigational warning or ship impact protection works;
- (c) temporary works for the protection of land or structures affected by the authorised scheme;
- (d) cable protection, scour protection or dredging; and
- (e) cable route preparation works including boulder removal and obstruction clearance, dredging and pre-sweeping.

(3) The substances or articles authorised for deposit at sea are—

- (a) iron, steel, aluminium and titanium;
- (b) stone and rock;
- (c) concrete and grout;
- (d) sand and gravel;
- (e) plastic and synthetic;
- (f) material extracted from within the offshore Order limits during construction drilling and seabed preparation for foundation works and cable sandwave preparation works; and
- (g) marine coatings, other chemicals and timber.

(4) This licence does not permit the decommissioning of the authorised scheme. No decommissioning activity must commence until a decommissioning programme has been approved by the Secretary of State under section 106 of the 2004 Act. Furthermore, at least 4 months before carrying out any such works, the undertaker must notify the MMO of the proposed decommissioning activity to establish whether a marine licence is required for such works.

(5) This licence does not permit the construction of Work No. 1A(a).

(6) This licence and Marine Licence 1 (as defined in the Order), when taken together, do not authorise the construction of more than 1 Work No. 1A or the construction of Work No. 1A in excess of the maximum parameters for that Work set out in Schedule 1 to the Order.

## PART B

### Conditions

#### Detailed offshore design parameters

3.—(1) The dimensions of any offshore collector platforms forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed 75 metres in length, 75 metres in width and 85 metres in height above HAT.

(2) The dimensions of any offshore converter platform forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed 125 metres in length, 100 metres in width and 105 metres in height above HAT.

(3) The dimensions of any combined platform forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed the total footprint of the individual platforms incorporated within it.

(4) Offshore platform foundation structures forming part of the authorised scheme must be 1 of the following foundation options: gravity base or multi-leg.

(5) No offshore platform foundation structure employing a footing of driven piles forming part of the authorised scheme must—

- (a) have more than 24 driven piles;
- (b) have a pile diameter of greater than 2.744 metres and employ a hammer energy during installation of greater than 1,900 kilojoules.

(6) No offshore platform foundation must have a seabed footprint area of subsea scour protection (excluding foundation footprint) of more than 8,742 square metres.

(7) The foundations for offshore platforms must not exceed the dimensions set out below—

<i>Foundation type</i>	<i>Offshore collector platform (multi-leg or gravity base foundation)</i>	<i>Offshore converter platform (multi-leg or gravity base foundation)</i>
Maximum seabed footprint area per foundation (excluding scour protection) in square metres	5,625	12,500

(8) The number of HVDC cables within Works No. 2A and 3A must not exceed 2. The total length of HVDC cables within Works No. 1A, 2A and 3A must not exceed 420 kilometres.

(9) The total cable protection for HVAC inter-platform cables (excluding cable crossings) must not exceed an area of 0.9997 square kilometres or a volume of 972,150 cubic metres within Work No. 1A.

(10) The total export cable protection (excluding cable crossings) must not exceed an area of 1.3391 square kilometres or a volume of 1,302,200 cubic metres.

(11) No cable protection must be employed within 350 metres seaward of MLWS, measured as a straight line.

(12) Cable protection must be limited to 10% of the cumulative length of all cables laid between MLWS and the 10-metre depth contour as measured against lowest astronomical tide before the commencement of construction.

(13) The length of HVAC cables comprising Work. No 1A must not exceed 320 kilometres.

#### Layout rules

4.—(1) The offshore platforms must be positioned in accordance with the principles within section 5.2 of Chapter 5 of the environmental statement.



(2) No construction of any offshore platform must commence until the MMO has approved its general position. These general layout arrangements must specify the physical point of connection between generation and transmission assets for Project A (as defined in the Order).

(3) The construction of the offshore platforms must be carried out as approved.

### **Notifications and inspections**

5.—(1) The undertaker must ensure that—

- (a) before any licensed activities are carried out under this licence, the undertaker informs the MMO of—
  - (i) the name of the person undertaking the licensed activities;
  - (ii) the works being undertaken pursuant to this licence comprising those works necessary from the point of connection with the generation assets;
  - (iii) the maximum total area and volume for any cable protection for HVAC inter-array cables and HVAC inter-platform cables to be constructed within the array area pursuant to this licence; and
  - (iv) the maximum total area and volume for any cable protection to be constructed within the array area pursuant to this licence;
- (b) any works notified under this Condition when combined with any works notified under Condition 6 of Marine Licences 1 and 2 (as defined in the Order) and Condition 5 of Marine Licence 4 (as defined in the Order) do not exceed the maximum parameters set out in Schedule 1 to the Order;
- (c) 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 11; and
  - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with Condition 11;
- (d) within 28 days of receipt of a copy of this licence the persons referred to in paragraph (c) provide a completed confirmation form to the MMO confirming that they have read and will comply with the terms of this licence.

(2) Only the persons and vessels notified to the MMO in accordance with Condition 11 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 are to be made.

(4) The documents referred to in sub-paragraph (1)(c) must be available for inspection by an enforcement officer at all reasonable times at the locations set out in sub-paragraph (3)(b).

(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 5 working days before commencement of the licensed activities or any phase of them.

(7) Before commencement of the licensed activities or any phase 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 phase.

(8) The undertaker must ensure that a notice to mariners is issued at least 10 working days before commencement of the licensed activities or any phase of them advising of the commencement date of Works No. 2A and 3A 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 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 8(1)(b). Copies of all notices must be provided to the MMO.

(10) The undertaker must notify—

- (a) the United Kingdom Hydrographic Office at least 2 weeks before commencement, and no later than 2 weeks following completion, of the authorised scheme in order that all necessary amendments to nautical charts are made; and
- (b) the MMO, MCA and Trinity House once the authorised scheme is completed and any required lighting or marking has been established.

### **Chemicals, drilling and debris**

6.—(1) All chemicals used in the construction of the authorised scheme, including any chemical agents placed within any monopile or other foundation structure void, must be selected from the list of notified chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002.

(2) The undertaker must ensure that any coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by Health and Safety Executive or the Environment Agency pollution prevention control guidelines. Any spillages must be reported to the MMO marine pollution response team within the timeframes specified in the marine pollution contingency plan.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must 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) The undertaker must ensure that any debris arising from the construction of the authorised scheme or temporary works placed seaward of MHWS is removed on completion of the authorised scheme.

(5) All dropped objects must be reported to the MMO using the dropped object form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of a dropped object form, the MMO may require side-scan sonar surveys to be carried out by the undertaker across a reasonable area of search agreed with the MMO where construction works and related activities have been carried out. The MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so. Representatives of the Holderness Fishing Industry Group must be invited to send a representative to be present during the survey.

(6) *This condition has been deleted*

(7) *This condition has been deleted*

### **Force majeure**

7. 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 otherwise than in accordance with Condition 9(2) because the safety of human life or the vessel is threatened—

- (a) within 48 hours full details of the circumstances of the deposit must be notified to the MMO; and
- (b) at the written request of the MMO, the unauthorised deposits must be removed at the expense of the undertaker.

## **Pre-construction plans and documentation**

**8.—(1)** The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO—

- (a) a plan to be agreed in writing with the MMO following consultation with Trinity House and the MCA which sets out the proposed details of the authorised scheme to ensure conformity with the description of Works No. 2A and 3A. This includes—
  - (i) the proposed layout of the HVAC and HVDC cables;
  - (ii) the proposed location, including grid co-ordinates, and choice of foundation types for any offshore platforms; and
  - (iii) the dimensions of all monopole, multi-leg and gravity foundations, if used;
- (b) a detailed construction and monitoring programme to include details of—
  - (i) the proposed construction commencement date;
  - (ii) proposed timings for mobilisation of plant, delivery of materials and installation works; and
  - (iii) proposed pre-construction surveys, a proposed format and content for a baseline report, construction monitoring, post-construction monitoring and related reporting in accordance with Conditions 13, 14 and 15. The pre-construction survey programme and all pre-construction survey methodologies must be submitted to the MMO for written approval at least 4 months before commencement of any survey works detailed within;
- (c) a construction method statement in accordance with the construction methods assessed in the environmental statement to include details of—
  - (i) drilling methods and disposal of drill arisings;
  - (ii) platform location and installation, including scour protection and foundations;
  - (iii) cable installation;
  - (iv) impact piling including soft start procedures;
  - (v) the source of rock material used in construction and method to minimise contaminants and fines;
  - (vi) contractors;
  - (vii) vessels; and
  - (viii) associated works;
- (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 and disposal arrangements including arrangements to ensure no waste concrete slurry or wash water from concrete or cement work is discharged;
  - (iv) the fisheries liaison officer appointed by the undertaker (to be notified to the District Marine Officer for the MMO's Northern District). Evidence of liaison must be collated so that signatures of attendance at meetings, agenda and minutes of meetings with the fishing industry can be provided to the MMO if requested;
  - (v) a fisheries liaison plan in accordance with the draft fisheries liaison plan to include information on liaison with the fishing industry (including by the fisheries liaison officer referred to in sub-paragraph (iv)) and a co-existence plan; and

- (vi) a mitigation scheme for any features of ecological importance identified by the survey referred to in Condition 13(2)(a);
- (e) a marine mammal mitigation protocol, the intention of which is to prevent, amongst other things, injury to marine mammals, primarily auditory injury within the vicinity of any piling, and appropriate monitoring surveys in accordance with the In Principle Monitoring Plan, to be agreed in writing with the MMO in consultation with the relevant statutory nature conservation body;
- (f) a cable specification and installation plan following consultation with the relevant statutory nature conservation body, to include—
  - (i) technical specification of 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;
  - (ii) a staged cable-laying plan for the Order limits, incorporating a burial risk assessment to ascertain suitable burial depths and cable-laying techniques;
  - (iii) a cable protection plan providing details of the need, type, sources, quality and installation methods for cable protection; and
  - (iv) details of the methodology and extent of post-lay survey, to confirm burial depths; and
- (g) a written scheme of archaeological investigation in relation to offshore areas within the Order limits in accordance with Chapter 18 Appendix B of the environmental statement, industry good practice and after discussions with English Heritage to include—
  - (i) details of the 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) within 3 months of any survey being completed, a timetable to be submitted to the MMO setting out the timeframe for analysis and reporting of survey data;
  - (iv) delivery of any mitigation including, where necessary, archaeological exclusion zones;
  - (v) monitoring during and post-construction, including a conservation programme for finds;
  - (vi) archiving of archaeological material including ensuring that a copy of any agreed archaeological report is deposited with the English Heritage archive by submitting an English Heritage OASIS form with a digital copy of the report; and
  - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme.

(2) In the event that a temporary cofferdam is constructed in Work No. 3A, a method statement for the monitoring and redistribution of sediment must be agreed in writing with the MMO.

**9.—**(1) Each programme, statement, plan, protocol, scheme or details required to be approved under Condition 8, and the arrangements required to be approved under Condition 4, must be submitted for approval at least 4 months before the intended commencement of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The licensed activities must be carried out in accordance with the programme, statement, plan, protocol, scheme or details approved under Condition 8.

### **Offshore safety management**

**10.—**(1) Offshore works must not commence until the MMO, in consultation with the MCA, has given written approval for an Emergency Response and Co-operation Plan (“ERCoP”) which includes full details of the ERCoP for the construction, operation and decommissioning phases of

the authorised scheme in accordance with the MCA recommendations contained within MGN371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues”. The ERCOP must include the identification of a point of contact for emergency response.

(2) The ERCoP must be implemented as approved.

(3) No authorised development seaward of MHWS must commence until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” and its annexes.

### **Reporting of engaged agents, contractors and vessels**

**11.**—(1) The undertaker must provide the name and function of any agent or contractor appointed to engage in the licensed activities to the MMO at least 2 weeks before the intended commencement of construction.

(2) Each week during the construction of the authorised scheme a completed Hydrographic Note H102 must be provided to the MMO listing the vessels currently and to be used in relation to the licensed activities.

(3) Any changes to the supplied details must be notified to the MMO in writing before the agent, contractor or vessel engages in the licensed activities.

### **Equipment and operation of vessels engaged in licensed activities**

**12.**—(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 and (except in the case of remotely-operated vehicles or vessels) must comply with sub-paragraphs (2) to (6).

(2) All motor powered vessels must be fitted with—

- (a) an electronic positioning aid to provide navigational data;
- (b) radar;
- (c) an echo-sounder; and
- (d) multi-channel VHF.

(3) No radio beacon or radar beacon operating on the marine frequency bands must be installed or used without the prior written approval of the Secretary of State.

(4) All vessels’ names or identification must be clearly marked on the hull or superstructure.

(5) All communication on VHF working frequencies must be in English.

(6) No vessel must engage in the licensed activities until all the equipment specified in sub-paragraph (2) is fully operational.

### **Pre-construction monitoring**

**13.**—(1) The undertaker must, in discharging Condition 8(1)(b), submit details for written approval by the MMO of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report. The survey proposals must be in accordance with the principles set out in the In Principle Monitoring Plan and must specify each survey’s objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position or will enable the validation or otherwise of key predictions in the environmental statement. The baseline report proposals must 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 must make clear what post-construction comparison is intended and the justification for this being required.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this Condition, where appropriate and necessary it is expected that the pre-construction surveys will comprise—

- (a) an appropriate survey to determine the location and reasonable extent of any benthic habitats of conservation, ecological or economic importance (including Annex 1 habitats) in whole or in part inside the areas within the Order limits in which it is proposed to carry out construction works; and
- (b) appropriate high-resolution bathymetric surveys undertaken to International Hydrographic Organisation Order 1A standard and side-scan surveys of the areas within Work No. 2A within the Order limits in which it is proposed to carry out construction works. This must include the identification of sites of historic or archaeological interest (A1 and A3 receptors) and any unidentified anomalies larger than 5 metres in diameter (A2 receptors), which may require the refinement, removal or introduction of archaeological exclusion zones and to confirm project-specific micro-siting requirements (for A2 receptors).

(3) The undertaker must carry out and complete the surveys to be undertaken under sub-paragraph (1) in a timescale which must be agreed with the MMO.

### **Construction monitoring**

14. The undertaker must, in discharging Condition 8(1)(b), submit details for approval by the MMO of any proposed surveys or monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme. The details of the construction monitoring must be submitted at least 4 months before commencement of any survey works and provide the agreed reports in the agreed format in accordance with the agreed timetable. The survey proposals must specify each survey's objectives. In any event, such monitoring must, where driven or part-driven pile foundations (for each specific foundation type) are proposed to be used, include measurements of noise generated by the installation of 1 pile from each of the first 4 structures with piled foundations, following which the MMO must determine whether further noise monitoring is required. The results of the initial noise measurements must be provided to the MMO within 6 weeks of the installation of the first relevant foundation piece. The assessment of this report by the MMO must determine whether any further noise monitoring is required.

### **Post-construction surveys**

15.—(1) The undertaker must, in discharging Condition 8(1)(b), submit details for written approval by the MMO of the post-construction surveys proposed in sub-paragraph (2), including methodologies and timings, and a proposed format, content and timings for providing reports on the results at least 4 months before commencement of any survey works detailed within. The survey proposals must be in accordance with the In Principle Monitoring Plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position or will enable the validation or otherwise of key predictions in the environmental statement.

(2) Subject to receipt of specific proposals, it is expected that the post-construction surveys will comprise—

- (a) appropriate high-resolution bathymetric surveys undertaken to International Hydrographic Organisation Order 1A standard and side-scan sonar surveys around a sample of infrastructure locations that are considered appropriate to assess any changes in seabed topography. For this purpose, the undertaker must before the first such survey submit a desk-based assessment (which takes account of all factors which influence scour) to identify the sample of infrastructure locations that are considered appropriate with greatest potential for scour. The survey will be used to validate the desk-based assessment. Further surveys may be required if there are significant differences between the modelled scour and recorded scour; and
- (b) dependent on the outcome of the surveys undertaken under Condition 13(2)(a), appropriate surveys to determine the effects of construction activity on any benthic

habitats of conservation, ecological or economic importance (including Annex 1 habitats) in whole or in part inside the areas within the Order limits to validate predictions made in the environmental statement.

(3) The undertaker must carry out the surveys under sub-paragraph (1) and provide the reports in the agreed format in accordance with the timetable as agreed in writing with the MMO following consultation with the relevant statutory nature conservation body.

### **Post-construction maintenance plan**

**16.**—(1) A post-construction maintenance plan must be submitted for written approval by the MMO at least 4 months before the licensed activities are commissioned, based on the maintenance in the outline maintenance plan.

(2) An update to the post-construction maintenance plan must be submitted for approval every 3 years, or sooner in the event of any proposed major revision to planned maintenance activities or the adoption of any new technologies or techniques applicable to programmed maintenance.

(3) Maintenance must be carried out as approved.

### **Aids to navigation**

**17.**—(1) Before commencement of the authorised scheme, an aids to navigation management plan must be approved in writing by the MMO following consultation with Trinity House and MCA specifying the—

- (a) aids to navigation to be established from the commencement of the authorised scheme to the completion of decommissioning;
- (b) monitoring and reporting of the availability of aids to navigation; and
- (c) notifications and procedures for ensuring navigational safety following failures to aids to navigation.

(2) The licensed activities must be carried out in accordance with the plan approved under this Condition.

**18.** The undertaker must keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MHWS including—

- (a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within 5 working days of completion of construction of the authorised scheme.

**19.** The undertaker must notify Trinity House and the MMO of any failure of the aids to navigation, including timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the detection of any such failure.

**20.** The undertaker must at or near the authorised scheme during the whole period of construction, operation, alteration, replacement or decommissioning of the authorised scheme seaward of MHWS 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 direct following consultation with the MMO.

**21.** The undertaker must submit reports quarterly to the MMO and Trinity House detailing the working condition of aids to navigation. Reports may be requested more frequently by the MMO or Trinity House and must be submitted by the undertaker as specified.

**22.** In case of damage to, or destruction or decay of, the authorised scheme seaward of MHWS or any part of it, the undertaker must as soon as possible and no later than 24 hours following the identification of damage, destruction or decay, notify Trinity House and MMO. The undertaker must also lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House following consultation with the MMO.

### **Colour of authorised scheme**

**23.**—(1) The undertaker must colour all structures which are part of the authorised scheme seaward of MHWS yellow (colour code RAL 1023) from at least HAT to a height approved by the MMO following consultation with Trinity House.

(2) Details of the remainder of the structures must be submitted to and approved in writing by the MMO following consultation with Trinity House before commencement of the authorised scheme.

(3) The structures must be coloured in accordance with the approved details.

### **Amendments to plans, etc.**

**24.** Where any Condition requires licensed activities to be carried out in accordance with any programme, statement, plan, protocol, scheme, details or arrangements approved by the MMO, the approved programme, statement, plan, protocol, scheme, details or arrangements must be taken to include any amendments that may subsequently be approved in writing by the MMO (after consulting any person that the MMO is required to consult under the relevant Condition).

## **SCHEDULE 4**

Articles 2 and 39

### **Marine Licence 4: Project B Offshore (Transmission Works No. 2B, 2BA or 2BC, 3B and 2T)**

#### **PART A**

#### **Licensed activities**

#### **Interpretation**

**1.**—(1) In this licence—

“2004 Act” means the Energy Act 2004;

“2009 Act” means the Marine and Coastal Access Act 2009;

“Annex 1 habitat” means a habitat set out in Annex 1 to Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora;

“authorised deposits” means the substances and articles specified in paragraph 2(3);

“authorised scheme” means Works No. 1B, 2BA, 2BC, 2B, 3B and 2T described in paragraph 2 or any part or phase of those works;

“cable crossings” means the crossing of existing subsea cables and pipelines by the inter-array, interconnecting or export cables authorised by the Order together with physical protection measures including cable protection;

“cable protection” means the measures to protect cables from physical damage and exposure due to loss of seabed sediment, including, but not limited to, the use of bagged solutions filled with grout or other materials, protective aprons or coverings, mattresses, flow energy dissipation devices or rock and gravel burial;

“combined platform” means a single offshore platform constructed in an array area comprising 2 or more of the following—

- (a) an offshore collector platform;
- (b) an offshore converter platform;
- (c) an offshore accommodation or helicopter platform;



“commence” means the first carrying out of any part of the licensed activities except for the pre-construction surveys and monitoring; and “commencement” must be construed accordingly;

“Condition” means a condition in Part B;

“draft fisheries liaison plan” means the document certified as the draft fisheries liaison plan by the Secretary of State for the purposes of the Order;

“enforcement officer” means a person authorised to carry out enforcement duties under Chapter 3 of the 2009 Act;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order and submitted with the application together with any supplementary or further environmental information submitted in support of the application;

“gravity base foundation” means a foundation type which rests on the seabed and supports the wind turbine generator, meteorological station or offshore platform primarily due to its own weight and that of added ballast, with or without skirts or other additional fixings, which may include associated equipment including J-tubes and access platforms and separate topside connection structures or an integrated transition piece. (Sub-types for wind turbine generators and meteorological stations include conical gravity base and flat-based gravity base. Sub-types for platforms include offshore platform conical or flat-base gravity base foundations and offshore platform semi-submersible gravity base foundations);

“HAT” means highest astronomical tide;

“HVAC” means high voltage alternating current;

“HVDC” means high voltage direct current;

“In Principle Monitoring Plan” means the document certified as the In Principle Monitoring Plan by the Secretary of State for the purposes of the Order;

“Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO;

“licensed activities” means the activities specified in this Part;

“maintain” includes inspect, repair, adjust and alter, and further includes remove, reconstruct and replace any of the ancillary works in Part 2 of Schedule 1 (ancillary works) to the Order and any component part of any offshore platform, meteorological station, electricity or communication cable described in Part 1 of that Schedule (authorised development) (but not including the removal or replacement of foundations) to the extent outlined within the post-construction maintenance plan; and “maintenance” must be construed accordingly;

“MCA” means the Maritime and Coastguard Agency;

“MHWS” (mean high water springs) means the highest level which spring tides reach on average over a period of time;

“MLWS” (mean low water springs) means the average of the low water heights occurring at the time of spring tides;

“MMO” means the Marine Management Organisation;

“multi-leg foundation” means foundation options based around structures with several legs or footings. This includes jackets, tripods, and other structures which include multiple large tubulars, cross-bracing, or lattices. Multi-leg foundations may be fixed to the seabed by footings which are driven, drilled, screwed, jacked-up, or embedded into the seabed by means such as suction or gravity. (Sub-types for wind turbine generators and meteorological stations include multi-legs with driven piles, drilled piles, screw piles, suction buckets or jack-up foundations. Sub-types for platforms include offshore platform jacket foundations (potentially using driven piles, suction buckets or screw piles) and offshore platform jack-up foundations);

“notice to mariners” includes any notice to mariners which may be issued by the Admiralty, Trinity House, Queen’s harbourmasters, government departments and harbour and pilotage authorities;

“offshore collector platform” means a platform (either singly or as part of a combined platform) housing or incorporating electrical switchgear or electrical transformers, electrical systems such as metering and control systems, J-tubes, landing facilities for vessels and helicopters, re-fuelling facilities, accommodation for staff during the construction, operation and decommissioning of the authorised scheme, communication and control systems, auxiliary and uninterruptible power supplies, large-scale energy storage systems, standby electricity generation equipment, cranes, storage for waste and consumables including fuel, marking and lighting and other associated equipment and facilities;

“offshore converter platform” means a platform (either singly or as part of a combined platform) housing or incorporating HVDC electrical switchgear or electrical transformers and other equipment to enable HVDC transmission to be used to convey the power output of the multiple wind turbine generators to shore including electrical systems such as metering and control systems, J-tubes, landing facilities for vessels and helicopters, re-fuelling facilities, accommodation for staff during the construction, operation and decommissioning of the authorised scheme, communication and control systems, auxiliary and uninterruptible power supplies, large-scale energy storage systems, standby electricity generation equipment, cranes, storage for waste and consumables including fuel, marking and lighting and other associated equipment and facilities;

“offshore Order limits plan” means the plans certified as the offshore Order limits and grid co-ordinates plan by the Secretary of State for the purposes of the Order;

“offshore platform” means any of the following—

- (a) an offshore accommodation or helicopter platform;
- (b) an offshore collector platform;
- (c) an offshore converter platform;
- (d) a combined platform;

“onshore Order limits plan” means the plans certified as the onshore Order limits and grid co-ordinates plan by the Secretary of State for the purposes of the Order;

“Order” means the Dogger Bank Creyke Beck Offshore Wind Farm Order 2015;

“Order limits” means the limits shown on the offshore and onshore Order limits plans;

“outline maintenance plan” means the document certified as the outline maintenance plan by the Secretary of State for the purposes of the Order;

“scour protection” means protection against foundation scour and subsea damage, for example from trawling, through reinforcement measures and measures to prevent loss of seabed sediment around foundation bases. These measures include the use of bagged solutions filled with grout or other materials, protective aprons, mattresses, flow energy dissipation devices and rock and gravel burial;

“undertaker” means Doggerbank Project 4 Bizco Limited (company number 7914510) whose registered office is 55 Vastern Road, Reading, Berkshire RG1 8BU;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water.

(2) In this licence, a reference to any statute, order, regulation or similar instrument is a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) In this licence, unless otherwise indicated,—

- (a) all times are Greenwich Mean Time (GMT);
- (b) all co-ordinates are latitude and longitude decimal degrees to 6 decimal places. The datum system used is WGS84.

(4) Except where otherwise notified in writing by the relevant organisation, the primary point of contact with the organisations listed below, and the address for returns and correspondence, is—

- (a) Marine Management Organisation  
Marine Licensing Team  
Lancaster House  
Hampshire Court  
Newcastle-upon-Tyne NE4 7YH  
Email: [marine.consents@marinemanagement.org.uk](mailto:marine.consents@marinemanagement.org.uk)  
Tel: 0300 123 1032;
  
- (b) Trinity House  
Tower Hill  
London EC3N 4DH  
Tel: 020 7481 6900;
  
- (c) United Kingdom Hydrographic Office  
Admiralty Way  
Taunton  
Somerset TA1 2DN  
Tel: 01823 337 900;
  
- (d) Maritime and Coastguard Agency  
Navigation Safety Branch  
Bay 2/04  
Spring Place  
105 Commercial Road  
Southampton SO15 1EG  
Tel: 023 8032 9191;
  
- (e) Centre for Environment, Fisheries and Aquaculture Science  
Pakefield Road  
Lowestoft  
Suffolk NR33 0HT  
Tel: 01502 562 244;
  
- (f) Natural England  
Foundary House  
3 Millsands  
Riverside Exchange  
Sheffield S3 8NH  
Tel: 0300 060 4911;
  
- (g) JNCC  
Inverdee House  
Baxter Street

Aberdeen AB11 9QA  
Tel: 01224 266 550;

- (h) English Heritage  
37 Tanner Row  
York YO1 6WP  
Tel: 01904 601901.

- (5) For information only, the details of the local MMO office to the authorised scheme is—  
Marine Management Organisation  
Northern Marine Area  
Neville House  
Central Riverside  
Bell Street  
North Shields  
Tyne and Wear NE30 1LJ  
Tel: 0191 257 4520.

#### **Details of licensed activities**

2.—(1) This licence authorises the undertaker (and any agent or contractor acting on its behalf) to carry out the following licensable marine activities under Part 4 of the 2009 Act, subject to the conditions in Part B—

- (a) the deposit at sea of the substances and articles specified in sub-paragraph (3);
- (b) the construction of works in or over the sea or on or under the sea bed including the removal, reconstruction or alteration of the position of subsea cables and pipelines; and
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation.

(2) Subject to sub-paragraphs (5) and (6), such activities are authorised in relation to the construction, maintenance and operation of—

Work No. 1B—

- (a) an offshore wind turbine generating station with a gross electrical output capacity of up to 1.2 gigawatts comprising up to 200 wind turbine generators each fixed to the seabed by monopole, multi-leg or gravity base type foundations, situated within the co-ordinates of the array area specified in Table 1B;

**Table 1B - Co-ordinates for array area**

<i>Point</i>	<i>Latitude (decimal degrees)</i>	<i>Longitude (decimal degrees)</i>
CBB-1	55.074509	1.505499
CBB-2	55.078127	1.557882
CBB-3	55.100307	1.673135
CBB-4	55.102152	1.854982
CBB-5	54.859236	1.861874
CBB-6	54.870965	1.473897
CBB-7	54.968002	1.488779
CBB-8	54.971992	1.488363

- (b) up to 7 offshore platforms comprising the following—
  - (i) up to 4 offshore collector platforms situated within the co-ordinates of the array area specified in Table 1B and being fixed to the seabed by multi-leg or gravity base type foundations;
  - (ii) 1 offshore converter platform situated within the co-ordinates of the array area specified in Table 1B and being fixed to the seabed by multi-leg or gravity base type foundations; and
  - (iii) up to 2 offshore accommodation or helicopter platforms situated within the co-ordinates of the array area specified in Table 1B and being fixed to the seabed by multi-leg or gravity base type foundations;

provided that any of the platforms comprised in Work No. 1B(b)(i) to (iii) may be co-joined to create a combined platform, fixed to the seabed by multi-leg or gravity base type foundations;
- (c) up to 5 meteorological stations situated within the co-ordinates of the array area specified in the Table 1B either fixed to the seabed by monopole, multi-leg or gravity base type foundations or utilising a floating support structure anchored to the seabed; and
- (d) a network of cables for the transmission of electricity and electronic communications laid on or beneath the seabed including cable crossings between—
  - (i) any of the wind turbine generators comprising Work No. 1B(a);
  - (ii) any of the wind turbine generators comprising Work No. 1B(a) and any of the works comprising Work No. 1B(b) or (c);
  - (iii) any of the works comprising Work No. 1B(b) and any of the works comprising Work No. 1B(c); and
  - (iv) the offshore converter platform comprising Work No. 1B(b)(ii) or the combined platforms referred to in Work No. 1B(b) and the export cable route in Work No. 2BA or 2BC;

Work No. 2B – up to 2 export cables for the transmission of HVDC electricity, together with fibre-optic cables for the transmission of electronic communications, laid on or beneath the seabed between Work No. 2BA or 2BC and Work No. 3B including cable crossings and situated within the co-ordinates of the export cable corridor area specified in the offshore and onshore Order limits plans;

Either—

- (a) Work No. 2BA – up to 2 export cables for the transmission of HVDC electricity, together with fibre-optic cables for the transmission of electronic communications, laid on or beneath the seabed between the offshore converter platform comprising Work No. 1B(b)(ii) or the combined platforms referred to in Work No. 1B(b) and Work No. 2B including cable crossings and situated within the co-ordinates of the export cable corridor area specified in the offshore Order limits plan; or
- (b) Work No. 2BC – up to 2 export cables for the transmission of HVDC electricity, together with fibre-optic cables for the transmission of electronic communications, laid on or beneath the seabed between the offshore converter platform comprising Work No. 1B(b)(ii) or the combined platforms referred to in Work No. 1B(b) and Work No. 1A, and between Work No. 1A and Work No. 2B, including cable crossings and situated within the co-ordinates of the export cable corridor area specified in the offshore Order limits plan;

Work No. 3B – up to 2 export cables for the transmission of HVDC electricity together with fibre-optic cables for the transmission of electronic communications, between MLWS and MHWS and connecting Work No. 2B with Work No. 4B;

Work No. 2T – a temporary work area for vessels to carry out intrusive activities during construction, including vessels requiring anchor spreads alongside the cable corridors; and

Ancillary works in connection with the above-mentioned works comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction or maintenance of the authorised scheme;
  - (b) temporary or permanent buoys, beacons, fenders and other navigational warning or ship impact protection works;
  - (c) temporary works for the protection of land or structures affected by the authorised scheme;
  - (d) cable protection, scour protection or dredging; and
  - (e) cable route preparation works including boulder removal and obstruction clearance, dredging and pre-sweeping.
- (3) The substances or articles authorised for deposit at sea are—
- (a) iron, steel, aluminium and titanium;
  - (b) stone and rock;
  - (c) concrete and grout;
  - (d) sand and gravel;
  - (e) plastic and synthetic;
  - (f) material extracted from within the offshore Order limits during construction drilling and seabed preparation for foundation works and cable sandwave preparation works; and
  - (g) marine coatings, other chemicals and timber.

(4) This licence does not permit the decommissioning of the authorised scheme. No decommissioning activity must commence until a decommissioning programme has been approved by the Secretary of State under section 106 of the 2004 Act. Furthermore, at least 4 months before carrying out any such works, the undertaker must notify the MMO of the proposed decommissioning activity to establish whether a marine licence is required for such works.

(5) This licence does not permit the construction of Work No. 1B(a).

(6) This licence and Marine Licence 2 (as defined in the Order), when taken together, do not authorise the construction of more than 1 Work No. 1B or the construction of Work No. 1B in excess of the maximum parameters for that Work set out in Schedule 1 to the Order.

## PART B

### Conditions

#### **Detailed offshore design parameters**

**3.—**(1) The dimensions of any offshore collector platform forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed 75 metres in length, 75 metres in width and 85 metres in height above HAT.

(2) The dimensions of any offshore converter platform forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed 125 metres in length, 100 metres in width and 105 metres in height above HAT.

(3) The dimensions of any combined platform forming part of the authorised scheme (excluding towers, helicopter landing pads, masts and cranes) must not exceed the total footprint of the individual platforms incorporated within it.

(4) Offshore platform foundation structures forming part of the authorised scheme must be 1 of the following foundation options: gravity base or multi-leg.

(5) No offshore platform foundation structure employing a footing of driven piles forming part of the authorised scheme must—

- (a) have more than 24 driven piles; or

(b) have a pile diameter of greater than 2.744 metres or employ a hammer energy during installation of greater than 1,900 kilojoules.

(6) No offshore platform foundation must have a seabed footprint area of subsea scour protection (excluding foundation footprint) of more than 8,742 square metres.

(7) The foundations for offshore platforms must not exceed the dimensions set out below—

<i>Foundation type</i>	<i>Offshore collector platform (multi-leg or gravity base foundation)</i>	<i>Offshore converter platform (multi-leg or gravity base foundation)</i>
Maximum seabed footprint area per foundation (excluding scour protection) in square metres	5,625	12,500

(8) Either Work No. 2BA or Work No. 2BC may be constructed (but not both).

(9) The number of HVDC cables within Works No. 2B, 2BA, 2BC and 3B must not exceed 2. The total length of HVDC cables within Works No. 1B, 2B, 2BA, 2BC and 3B must not exceed 378 kilometres.

(10) The total cable protection for HVAC inter-platform cables (excluding cable crossings) must not exceed an area of 0.9997 square kilometres or a volume of 972,150 cubic metres within Work No. 1B.

(11) The total export cable protection (excluding cable crossings) must not exceed an area of 1.2217 square kilometres or a volume of 1,188,090 cubic metres.

(12) No cable protection must be employed within 350 metres seaward of MLWS, measured as a straight line.

(13) Cable protection must be limited to 10% of the cumulative length of all cables laid between MLWS and the 10-metre depth contour as measured against lowest astronomical tide before the commencement of construction.

(14) The length of HVAC cables comprising Work No. 1B must not exceed 320 kilometres.

### **Layout rules**

4.—(1) The offshore platforms must be positioned in accordance with the principles within section 5.2 of Chapter 5 of the environmental statement.

(2) No construction of any offshore platform must commence until the MMO has approved its general position. These general layout arrangements must specify the physical point of connection between generation and transmission assets for Project B (as defined in the Order).

(3) The construction of the offshore platforms must be carried out as approved.

### **Notifications and inspections**

5.—(1) The undertaker must ensure that—

- (a) before any licensed activities are carried out under this licence, the undertaker informs the MMO of—
  - (i) the name of the person undertaking the licensed activities;
  - (ii) the works being undertaken pursuant to this licence comprising those works necessary from the point of connection with the generation assets;
  - (iii) the maximum total area and volume for any cable protection for HVAC inter-array cables and HVAC inter-platform cables to be constructed within the array area pursuant to this licence; and
  - (iv) the maximum total area and volume for any cable protection to be constructed within the array area pursuant to this licence;

- (b) any works notified under this Condition when combined with any works notified under Condition 6 of Marine Licences 1 and 2 (as defined in the Order) and Condition 5 of Marine Licence 3 (as defined in the Order) do not exceed the maximum parameters set out in Schedule 1 to the Order;
  - (c) 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 11; and
    - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with Condition 11;
  - (d) within 28 days of receipt of a copy of this licence, the persons referred to in paragraph (a) provide a completed confirmation form to the MMO confirming that they have read and will comply with the terms of this licence.
- (2) Only the persons and vessels notified to the MMO in accordance with Condition 11 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 are to be made.
- (4) The documents referred to in sub-paragraph (1)(c) must be available for inspection by an enforcement officer at all reasonable times at the locations set out in sub-paragraph (3)(b).
- (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 5 working days before commencement of the licensed activities or any phase of them.
- (7) Before commencement of the licensed activities or any phase 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 phase.
- (8) The undertaker must ensure that a notice to mariners is issued at least 10 working days before commencement of the licensed activities or any phase of them advising of the commencement date of Works No. 2B and 3B 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 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 8(1)(b). Copies of all notices must be provided to the MMO.
- (10) The undertaker must notify—
- (a) the United Kingdom Hydrographic Office at least 2 weeks before commencement, and no later than 2 weeks following, completion of the authorised scheme in order that all necessary amendments to nautical charts are made; and
  - (b) the MMO, MCA and Trinity House once the authorised scheme is completed and any required lighting or marking has been established.



## **Chemicals, drilling and debris**

6.—(1) All chemicals used in the construction of the authorised scheme, including any chemical agents placed within any monopile or other foundation structure void, must be selected from the list of notified chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002.

(2) The undertaker must ensure that any coatings and treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by Health and Safety Executive or the Environment Agency pollution prevention control guidelines. Any spillages must be reported to the MMO marine pollution response team within the timeframes specified in the marine pollution contingency plan.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must 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) The undertaker must ensure that any debris arising from the construction of the authorised scheme or temporary works placed seaward of MHWS is removed on completion of the authorised scheme.

(5) All dropped objects must be reported to the MMO using the dropped object form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of a dropped object form, the MMO may require side-scan sonar surveys to be carried out by the undertaker across a reasonable area of search agreed with the MMO where construction works and related activities have been carried out. The MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so. Representatives of the Holderness Fishing Industry Group must be invited to send a representative to be present during the survey.

(6) *This condition has been deleted*

(7) *This condition has been deleted*

## **Force majeure**

7. 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 otherwise than in accordance with Condition 9(2) because the safety of human life or the vessel is threatened—

- (a) within 48 hours full details of the circumstances of the deposit must be notified to the MMO; and
- (b) at the written request of the MMO, the unauthorised deposits must be removed at the expense of the undertaker.

## **Pre-construction plans and documentation**

8.—(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO—

- (a) a plan to be agreed in writing with the MMO following consultation with Trinity House and the MCA which sets out the proposed details of the authorised scheme to ensure conformity with the description of Works No. 2B, 2BA or 2BC and 3B. This includes—
  - (i) the proposed layout of the HVAC and HVDC cables;
  - (ii) the proposed location, including grid co-ordinates, and choice of foundation types for any offshore platforms; and
  - (iii) the dimensions of all monopile, multi-leg and gravity foundations, if used;
- (b) a detailed construction and monitoring programme to include details of—
  - (i) the proposed construction commencement date;

- (ii) proposed timings for mobilisation of plant, delivery of materials and installation works; and
  - (iii) proposed pre-construction surveys, a proposed format and content for a baseline report, construction monitoring, post-construction monitoring and related reporting in accordance with Conditions 13, 14 and 15. The pre-construction survey programme and all pre-construction survey methodologies must be submitted to the MMO for written approval at least 4 months before commencement of any survey works detailed within;
- (c) a construction method statement in accordance with the construction methods assessed in the environmental statement to include details of—
- (i) drilling methods and disposal of drill arisings;
  - (ii) platform location and installation, including scour protection and foundations;
  - (iii) cable installation;
  - (iv) impact piling including soft start procedures;
  - (v) the source of rock material used in construction and method to minimise contaminants and fines;
  - (vi) contractors;
  - (vii) vessels; and
  - (viii) associated works;
- (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 and disposal arrangements including arrangements to ensure no waste concrete slurry or wash water from concrete or cement work is discharged;
  - (iv) the fisheries liaison officer appointed by the undertaker (to be notified to the District Marine Officer for the MMO's Northern District). Evidence of liaison must be collated so that signatures of attendance at meetings, agenda and minutes of meetings with the fishing industry can be provided to the MMO if requested;
  - (v) a fisheries liaison plan in accordance with the draft fisheries liaison plan to include information on liaison with the fishing industry (including by the fisheries liaison officer referred to in sub-paragraph (iv)) and a co-existence plan; and
  - (vi) a mitigation scheme for any features of ecological importance identified by the survey referred to in Condition 13(2)(a);
- (e) a marine mammal mitigation protocol, the intention of which is to prevent, amongst other things, injury to marine mammals, primarily auditory injury within the vicinity of any piling, and appropriate monitoring surveys in accordance with the In Principle Monitoring Plan, to be agreed in writing with the MMO in consultation with the relevant statutory nature conservation body;
- (f) a cable specification and installation plan following consultation with the relevant statutory nature conservation body, to include—
- (i) technical specification of 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;
  - (ii) a staged cable-laying plan for the Order limits, incorporating a burial risk assessment to ascertain suitable burial depths and cable-laying techniques;

- (iii) a cable protection plan providing details of the need, type, sources, quality and installation methods for cable protection; and
- (iv) the details of the methodology and extent of post-lay survey, to confirm burial depths; and
- (g) a written scheme of archaeological investigation in relation to offshore areas within the Order limits in accordance with Chapter 18 Appendix B of the environmental statement, industry good practice and after discussions with English Heritage to include—
  - (i) details of the 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) within 3 months of any survey being completed, a timetable to be submitted to the MMO setting out the timeframe for analysis and reporting of survey data;
  - (iv) delivery of any mitigation including, where necessary, archaeological exclusion zones;
  - (v) monitoring during and post-construction, including a conservation programme for finds;
  - (vi) archiving of archaeological material including ensuring that a copy of any agreed archaeological report is deposited with the English Heritage archive by submitting an English Heritage OASIS form with a digital copy of the report; and
  - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and

(2) In the event that a temporary cofferdam is constructed in Work No. 3B, a method statement for the monitoring and redistribution of sediment must be agreed with the MMO.

**9.**—(1) Each programme, statement, plan, protocol, scheme or details required to be approved under Condition 8, and the arrangements required to be approved under Condition 4, must be submitted for approval at least 4 months before the intended commencement of construction, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The licensed activities must be carried out in accordance with the programme, statement, plan, protocol, scheme or details approved under Condition 8.

### **Offshore safety management**

**10.**—(1) Offshore works must not commence until the MMO, in consultation with the MCA, has given written approval for an Emergency Response and Co-operation Plan (“ERCoP”) which includes full details of the ERCoP for the construction, operation and decommissioning phases of the authorised scheme in accordance with the MCA recommendations contained within MGN371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues”. The ERCoP must include the identification of a point of contact for emergency response.

(2) The ERCoP must be implemented as approved.

(3) No authorised development seaward of MHWS must commence until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and adequately addressed all MCA recommendations as appropriate to the authorised scheme contained within MGN371 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” and its annexes.

### **Reporting of engaged agents, contractors and vessels**

**11.**—(1) The undertaker must provide the name and function of any agent or contractor appointed to engage in the licensed activities to the MMO at least 2 weeks before the intended commencement of construction.

(2) Each week during the construction of the authorised scheme a completed Hydrographic Note H102 must be provided to the MMO listing the vessels currently and to be used in relation to the licensed activities.

(3) Any changes to the supplied details must be notified to the MMO in writing before the agent, contractor or vessel engages in the licensed activities.

### **Equipment and operation of vessels engaged in licensed activities**

**12.**—(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 and (except in the case of remotely-operated vehicles or vessels) must comply with sub-paragraphs (2) to (6).

(2) All motor powered vessels must be fitted with—

- (a) an electronic positioning aid to provide navigational data;
- (b) radar;
- (c) an echo-sounder; and
- (d) multi-channel VHF.

(3) No radio beacon or radar beacon operating on the marine frequency bands must be installed or used without the prior written approval of the Secretary of State.

(4) All vessels' names or identification must be clearly marked on the hull or superstructure.

(5) All communication on VHF working frequencies must be in English.

(6) No vessel must engage in the licensed activities until all the equipment specified in sub-paragraph (2) is fully operational.

### **Pre-construction monitoring**

**13.**—(1) The undertaker must, in discharging Condition 8(1)(b), submit details for written approval by the MMO of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report. The survey proposals must be in accordance with the principles set out in the In Principle Monitoring Plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position or will enable the validation or otherwise of key predictions in the environmental statement. The baseline report proposals must 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 must make clear what post-construction comparison is intended and the justification for this being required.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this Condition, where appropriate and necessary it is expected that the pre-construction surveys will comprise—

- (a) an appropriate survey to determine the location and reasonable extent of any benthic habitats of conservation, ecological or economic importance (including Annex 1 habitats) in whole or in part inside the areas within the Order limits in which it is proposed to carry out construction works; and
- (b) appropriate high-resolution bathymetric surveys undertaken to International Hydrographic Organisation Order 1A standard and side-scan surveys of the areas within Work No. 2B, 2BA or 2BC within the Order limits in which it is proposed to carry out construction works. This must include the identification of sites of historic or archaeological interest (A1 and A3 receptors) and any unidentified anomalies larger than 5 metres in diameter (A2 receptors), which may require the refinement, removal or

introduction of archaeological exclusion zones and to confirm project-specific micro-siting requirements (for A2 receptors).

(3) The undertaker must carry out and complete the surveys to be undertaken under sub-paragraph (1) in a timescale which must be agreed with the MMO.

### **Construction monitoring**

**14.** The undertaker must, in discharging Condition 8(1)(b), submit details for approval by the MMO of any proposed surveys or monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme. The details of the construction monitoring must be submitted at least 4 months before commencement of any survey works and provide the agreed reports in the agreed format in accordance with the agreed timetable. The survey proposals must specify each survey's objectives. In any event, such monitoring must, where driven or part-driven pile foundations (for each specific foundation type) are proposed to be used, include measurements of noise generated by the installation of 1 pile from each of the first 4 structures with piled foundations, following which the MMO must determine whether further noise monitoring is required. The results of the initial noise measurements must be provided to the MMO within 6 weeks of the installation of the first relevant foundation piece. The assessment of this report by the MMO must determine whether any further noise monitoring is required.

### **Post-construction surveys**

**15.—(1)** The undertaker must, in discharging Condition 8(1)(b), submit details for written approval by the MMO of the post-construction surveys proposed in sub-paragraph (2), including methodologies and timings, and a proposed format, content and timings for providing reports on the results at least 4 months before commencement of any survey works detailed within. The survey proposals must be in accordance with the principles set out in the In Principle Monitoring Plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position or will enable the validation or otherwise of key predictions in the environmental statement.

(2) Subject to receipt of specific proposals, it is expected that the post-construction surveys will comprise—

- (a) appropriate high-resolution bathymetric surveys undertaken to International Hydrographic Organisation Order 1A standard and side-scan sonar surveys around a sample of infrastructure locations that are considered appropriate to assess any changes in seabed topography. For this purpose, the undertaker must before the first such survey submit a desk-based assessment (which takes account of all factors which influence scour) to identify the sample of infrastructure locations that are considered appropriate with greatest potential for scour. The survey will be used to validate the desk-based assessment. Further surveys may be required if there are significant differences between the modelled scour and recorded scour; and
- (b) dependent on the outcome of the surveys undertaken under Condition 13(2)(a), appropriate surveys to determine the effects of construction activity on any benthic habitats of conservation, ecological or economic importance (including Annex 1 habitats) in whole or in part inside the areas within the Order limits to validate predictions made in the environmental statement.

(3) The undertaker must carry out the surveys under sub-paragraph (1) and provide the reports in the agreed format in accordance with the timetable as agreed in writing with the MMO following consultation with relevant statutory nature conservation body.

### **Post-construction maintenance plan**

**16.—(1)** A post-construction maintenance plan must be submitted for written approval by the MMO at least 4 months before the licensed activities are commissioned, based on the maintenance in the outline maintenance plan.

(2) An update to the post-construction maintenance plan must be submitted for approval every 3 years, or sooner in the event of any proposed major revision to planned maintenance activities or the adoption of any new technologies or techniques applicable to programmed maintenance.

(3) Maintenance must be carried out as approved.

### **Aids to navigation**

**17.**—(1) Before commencement of the authorised scheme, an aids to navigation management plan must be approved in writing by the MMO following consultation with Trinity House and MCA specifying the—

- (a) aids to navigation to be established from the commencement of the authorised scheme to the completion of decommissioning;
- (b) monitoring and reporting of the availability of aids to navigation; and
- (c) notifications and procedures for ensuring navigational safety following failures to aids to navigation.

(2) The licensed activities must be carried out in accordance with the plan approved under this Condition.

**18.** The undertaker must keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MHWS including—

- (a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within 5 working days of completion of construction of the authorised scheme.

**19.** The undertaker must notify Trinity House and the MMO of any failure of the aids to navigation, including timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the detection of any such failure.

**20.** 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 seaward of MHWS 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 following consultation with the MMO.

**21.** The undertaker must submit reports quarterly to the MMO and Trinity House detailing the working condition of aids to navigation. Reports may be requested more frequently by the MMO or Trinity House and must be submitted by the undertaker as specified.

**22.** In case of damage to, or destruction or decay of, the authorised scheme seaward of MHWS or any part of it, the undertaker must as soon as possible and no later than 24 hours following the identification of damage, destruction or decay, notify Trinity House and the MMO. The undertaker must also lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House following consultation with the MMO.

### **Colour of authorised scheme**

**23.**—(1) The undertaker must colour all structures that are part of the authorised scheme seaward of MHWS yellow (colour code RAL 1023) from at least HAT to a height approved by the MMO following consultation with Trinity House.

(2) Details of the remainder of the structures must be submitted to and approved in writing by the MMO following consultation with Trinity House before commencement of the authorised scheme.

(3) The structures must be coloured in accordance with the approved details.

**Amendments to plans, etc.**

24. Where any Condition requires licensed activities to be carried out in accordance with any programme, statement, plan, protocol, scheme, details or arrangements approved by the MMO, the approved programme, statement, plan, protocol, scheme, details or arrangements must be taken to include any amendments that may subsequently be approved in writing by the MMO (after consulting any person that the MMO is required to consult under the relevant Condition).