SCHEDULE 9

Article 32

Deemed Licence under the 2009 Act – Generation Assets (Licence 1 – Phase 1)

PART 1

Interpretation

1.—(1) In this licence—

"the 2004 Act" means the Energy Act 2004;

"the 2008 Act" means the Planning Act 2008;

"the 2009 Act" means the Marine and Coastal Access Act 2009;

"the 2011 Regulations" means the Marine Licensing (Licence Application Appeals) Regulations 2011¹;

"the 2017 Regulations" means the Conservation of Offshore Marine Habitats and Species Regulations 2017²;

"authorised deposits" means the substances and articles specified in paragraph 5 of Part 2 of this licence;

"authorised scheme" means Work No. 1 described in Part 3 of this licence or any part of that work;

"cable protection" means measures for offshore cable crossings and where cable burial is not possible due to ground conditions or approaching offshore structures, to protect cables and fibre optic cables and prevent loss of seabed sediment by use of grout bags, protective aprons, mattresses, flow energy dissipation (frond) devices or rock and gravel dumping;

"commence" means the first carrying out of any part of the licensed activities save for preconstruction surveys and monitoring and "commenced" and "commencement" must be construed accordingly;

"condition" means a condition in Part 4 of this licence;

"Defence Infrastructure Organisation Safeguarding" means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands B75 7RL and any successor body to its functions;

"Development Principles" means the document certified as the Development Principles by the Secretary of State for the purposes of the Order;

"draft marine mammal mitigation protocol" means the document certified as the draft marine mammal mitigation protocol by the Secretary of State for the purposes of this Order;

"draught height" means the distance between the lowest point of the rotating blade of the wind turbine generator and MHWS;

"enforcement officer" means a person authorised to carry out enforcement duties under Chapter 3 of Part 4 (marine licensing) of the 2009 Act;

"environmental statement" means the document certified as the environmental statement by the Secretary of State for the purposes of this Order;

"gravity base" means a structure principally of steel, concrete, or steel and concrete which rests on the seabed either due to its own weight with or without added ballast or additional skirts and associated materials and equipment including scour protection, J-tubes, transition piece,

¹ S.I. 2011/934.

² S.I. 2017/1013.

corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"HAT" means highest astronomical tide;

"in principle Norfolk Boreas Southern North Sea Special Area of Conservation Site Integrity Plan" means the document certified as the in principle Norfolk Boreas Southern North Sea Special area of Conservation Site Integrity Plan by the Secretary of State for the purposes of this Order;

"jacket foundation" means a steel jacket/ lattice-type structure constructed of steel which is fixed to the seabed at three or more points with steel pin piles or steel suction caissons and associated materials and equipment including scour protection, J-tubes, transition piece, corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"Kingfisher Fortnightly Bulletin" means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO for the purposes of this licence;

"licence 2 (generation)" means the licence set out in Schedule 10 (deemed licence under the 2009 Act – generation assets (licence 2 – phase 2));

"licensed activities" means the activities specified in Part 3 of this licence;

"maintain" includes inspect, upkeep, repair, adjust, and alter and further includes remove,

reconstruct and replace (but only in relation to any of the ancillary works in Part 2 of Schedule 1 (ancillary works), any cable, and any component part of any wind turbine generator, offshore electrical substation, offshore service platform or meteorological mast described in Part 1 of Schedule 1 (authorised development) not including the alteration, removal or replacement of foundations), to the extent assessed in the environmental statement; and "maintenance" is construed accordingly;

"Marine Management Organisation" or "MMO" means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence;

"marker buoy" means any floating device used for marker or navigation purposes, including LIDAR buoys and wave buoys;

"MCA" means the Maritime and Coastguard Agency;

"mean high water springs" or "MHWS" means the highest level which spring tides reach on average over a period of time;

"measurement buoy" means any floating device used for measurement purposes, including LIDAR buoys and wave buoys;

"meteorological mast" means a mast housing equipment to measure wind speed and other wind characteristics, including a topside housing electrical, communication and associated equipment and marking and lighting;

"monopile foundation" means a steel pile, typically cylindrical, driven and/or drilled into the seabed and associated materials and equipment including scour protection, J-tubes, transition piece, corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"Norfolk Boreas Offshore Wind Farm" means the offshore wind farm authorised pursuant to the Order

"Norfolk Vanguard Offshore Wind Farm" means the offshore wind farm for which Norfolk Vanguard Limited has sought a development consent order pursuant to an application submitted to the Secretary of State on 26th June 2018;

"Norfolk Vanguard East" means the eastern offshore wind site of the Norfolk Vanguard Offshore Wind Farm;

"notice to mariners" means a notice issued by the undertaker to mariners to inform them of issues that affect the safety of navigation;

"offshore cables" means any cables offshore;

"offshore in principle monitoring plan" means the document certified as the offshore in principle monitoring plan by the Secretary of State for the purposes of this Order; "offshore Order limits" means the limits shown on the works plan within which the authorised scheme may be carried out, whose grid coordinates are set out in Part 2 of this licence;

"offshore service platform" means a platform to house workers offshore and/or provide refuelling facilities and sheltering facilities for helicopters; "the Order" means the Norfolk Boreas Offshore Wind Farm Order 2021;

"outline fisheries liaison and co-existence plan" means the document certified as the outline fisheries liaison and co-existence plan by the Secretary of State for the purposes of this Order;

"outline marine traffic monitoring strategy" means the document certified as the outline marine traffic monitoring strategy by the Secretary of State for the purposes of this Order;

"outline offshore operations and maintenance plan" means the document certified as the outline offshore operations and maintenance plan by the Secretary of State for the purposes of the Order;

"outline written scheme of investigation (offshore)" means the document certified as the outline written scheme of investigation (offshore) by the Secretary of State for the purposes of this Order;

"pin piles" means steel cylindrical piles driven and/or drilled into the seabed to secure steel jacket foundations;

"relevant site" means a European offshore marine site or a European site as defined in the 2017 Regulations

"scenario 1" means the scenario in which the Norfolk Vanguard Offshore Wind Farm proceeds to construction and carries out enabling works, including the laying of onshore cable ducts, to benefit the Norfolk Boreas Offshore Wind Farm;

"scenario 2" means the scenario in which the Norfolk Vanguard Offshore Wind Farm does not proceed to construction and Norfolk Boreas Offshore Wind Farm is built out as an independent project including the laying of onshore cable ducts;

"scour protection" means measures to prevent loss of seabed sediment around any marine structure placed in or on the seabed by use of protective aprons, mattresses with or without frond devices, or rock and gravel placement.

"single offshore phase" means carrying out all offshore works as a single construction operation;

"statutory historic body" means Historic Buildings and Monuments Commission for England (Historic England) or its successor in function;

"statutory nature conservation body" means an organisation charged by government with advising on nature conservation matters;

"suction caisson" means a large diameter steel cylindrical shell which penetrates the seabed assisted by a hydrostatic pressure differential for fixity of foundations;

"tetrabase foundation" means a tripod shaped steel frame anchored under its own weight or through pin pile or suction bucket anchoring and associated materials and equipment including scour protection, J-tubes, transition piece, corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"Trinity House" means the Corporation of Trinity House of Deptford Strond;

"two offshore phases" means carrying out the offshore works as two separate construction operations;

"UK Hydrographic Office" means the UK Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

"undertaker" means Norfolk Boreas Limited (Company No. 03722058) whose registered office is at 5th Floor, 70 St Mary Axe, London EC3A 8BE

"vessel" means every description of vessel, however propelled or moved, and includes a nondisplacement 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, rotor with up to three blades connected at the hub, nacelle and ancillary electrical and other equipment which may include corrosion protection systems, helicopter landing facilities and other associated equipment, fixed to a foundation;

"works plan" means the plan certified as the works plan by the Secretary of State for the purposes of the Order.

2. A reference to any statute, order, regulation or similar instrument is construed as 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. Unless otherwise indicated—

- (a) all times are taken to be Greenwich Mean Time (GMT); and
- (b) all co-ordinates are taken to be latitude and longitude degrees and minutes to two decimal places.

4. Except where otherwise notified in writing by the relevant organisation, the primary points of contact with the organisations listed below and the addresses for returns and correspondence are—

(a) Marine Management Organisation

Marine Licensing Lancaster House Hampshire Court Newcastle Business Park Newcastle upon Tyne NE4 7YH Tel:

(b) Marine Management Organisation (local office)

Lowestoft Office Pakefield Road Lowestoft Suffolk NR33 0HT Tel:

- (c) Trinity House Tower Hill LondonEC3N
 4DH Tel:
- (d) The United Kingdom Hydrographic Office Admiralty Way Taunton Somerset TA1 2DN Tel:
- (e) Maritime and Coastguard Agency Navigation Safety Branch
 Bay 2/20, Spring Place
 105 Commercial Road
 Southampton

	SO15 1EG
	Tel: ;
(f)	Centre for Environment, Fisheries and Aquaculture Science
	Pakefield Road
	Lowestoft
	Suffolk
	NR33 0HT
	Tel:
(g)	Natural England
	Area 1C, Nobel House
	17 Smith Square
	London
	SW1P 2AL
	Tel:
(h)	Historic England
	Cannon Bridge House
	25 Dowgate Hill
	London
	EC4R 2YA
	Tel:

PART 2

Licensed Marine Activities – General

1. This licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108 (reviews and revisions of decommissioning programmes), and the completion of such programme has been confirmed by the Secretary of State in writing.

2. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence only apply to a transfer not falling within article 6 (benefit of the Order).

3. With respect to any condition which requires the licensed activities be carried out in accordance with the plans, protocols or statements approved under this Schedule, the approved details, plan or scheme are taken to include any amendments that may subsequently be approved in writing by the MMO.

4. Any amendments to or variations from the approved plans, protocols or statements must be minor or immaterial and it must be demonstrated to the satisfaction of the MMO that they are unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

5. The substances or articles authorised for deposit at sea are—

- (a) iron and steel, copper and aluminium;
- (b) stone and rock;
- (c) concrete;
- (d) sand and gravel;

- (e) plastic and synthetic;
- (f) material extracted from within the offshore Order limits during construction drilling or seabed preparation for foundation works and cable (including fibre optic cable) sandwave preparation works; and
- (g) marine coatings, other chemicals and timber.
- 6. The grid coordinates for the authorised scheme are specified below—

Point	Latitude (DMS)	Longitude (DMS)	Point	Latitude (DMS)	Longitude (DMS)
1	53° 14′ 28.789″ N	3° 3′ 31.257″ E	117	52° 48′ 9.945″ N	2° 51′ 14.086″ E
2	52° 56′ 14.962″ N	3° 8′ 41.012″ E	118	52° 47′ 34.455″ N	2° 46′ 27.112″ E
3	52° 52′ 14.268″ N	2° 45′ 34.286″ E	119	52° 47′ 27.872″ N	2° 45′ 34.071″ E
4	53° 3′ 46.017″ N	2° 45′ 35.676″ E	120	52° 51′ 41.636″ N	2° 45′ 34.220″ E
5	53° 8′ 27.770″ N	2° 48′ 38.429″ E	121	52° 51′ 50.970″ N	2° 46′ 27.714″ E
6	53° 13′ 52.532″ N	3° 2′ 3.556″ E	122	52° 52′ 49.498″ N	2° 52′ 4.152″ E
7	53° 13′ 53.967″ N	3° 2′ 7.131″ E	123	52° 53′ 4.385″ N	2° 51′ 57.093″ E
8	53° 13′ 59.710″ N	3° 2′ 21.440″ E	124	52° 53′ 19.948″ N	2° 51′ 49.713″ E
9	53° 14′ 8.462″ N	3° 2′ 43.249″ E	125	52° 52′ 14.268″ N	2° 45′ 34.286″ E
10	53° 14′ 21.060″ N	3° 3′ 12.673″ E	126	53° 3′ 46.017″ N	2° 45′ 35.676″ E
11	53° 10′ 30.403″ N	2° 59′ 5.331″ E	127	53° 8′ 27.770″ N	2° 48′ 38.429″ E
12	53° 10′ 30.387″ N	- 2° 59′ 6.176″ E	128	53° 13′ 52.532″ N	3° 2′ 3.556″ E
13	53° 10′ 30.403″ N	2° 59′ 7.022″ E	129	53° 13′ 53.967″ N	3° 2′ 7.131″ E
14	53° 10′ 30.451″ N	2° 59′ 7.863″ E	130	53° 13′ 59.710″ N	3° 2′ 21.440″ E
15	53° 10′ 30.531″ N	2° 59′ 8.699″ E	131	53° 14′ 8.462″ N	3° 2′ 43.249″ E
16	53° 10′ 30.641″ N	2° 59′ 9.524″ E	132	53° 14′ 21.060″ N	- 3° 3′ 12.673″ E
17	53° 10′ 30.783″ N	2° 59′ 10.336″ E	133	53° 10′ 30.403″ N	- 2° 59′ 5.331″ E
18	53° 10′ 30.955″ N	2° 59′ 11.131″ E	134	53° 10′ 30.387″ N	- 2° 59′ 6.176″ E
19	53° 10′ 31.157″ N	2° 59′ 11.907″ E	135	53° 10′ 30.403″ N	2° 59′ 7.022″ E
20	53° 10′ 31.388″ N	2° 59′ 12.661″ E	136	53° 10′ 30.451″ N	2° 59′ 7.863″ E
21	53° 10′ 31.646″ N	2° 59′ 13.389″ E	137	53° 10′ 30.531″ N	– 2° 59′ 8.699″ E
22	53° 10′ 31.932″ N	2° 59′ 14.088″ E	138	53° 10′ 30.641″ N	2° 59′ 9.524″ E

23	53° 10′ 32.243″ N	2° 59′ 14.756″ E	139	53° 10′ 30.783″ N	2° 59′ 10.336″ E
24	53° 10′ 22.570″ N	2° 59′ 15 200″ E	140	53° 10′	2° 59′
	32.579" N	15.390" E		30.955" N	11.131″ E
25	53° 10′	2° 59′	141	53° 10′	2° 59′
20	32.938" N	15.988" E	111	31.157" N	11.907" E
26	53° 10′	2° 59′	142	53° 10′	2° 59′
20	33.319" N	16.548" E	142	31.388" N	12.661" E
27	53° 10′	2° 59′	1.40	53° 10′	2° 59′
27	33.721″ N	17.066" E	143	31.646" N	13.389" E
	53° 10′	2° 59′		53° 10′	2° 59′
28	34.141″ N	17.541″ E	144	31.932" N	14.088" E
	53° 10′	2° 59′		53° 10′	2° 59′
29	34.578" N	17.972″ E	145	32.243″ N	14.756" E
	53° 10′	2° 59′		53° 10′	2° 59′
30	35.031" N	2 59 18.356" E	146	32.579" N	2 39 15.390" E
31	53° 10′ 25.407″ N	2° 59′ 18.692″ E	147	53° 10′	2° 59′ 15 088″ E
	35.497" N			32.938" N	15.988" E
32	53° 10′	2° 59′	148	53° 10′	2° 59′
	35.975" N	18.978″ E		33.319" N	16.548" E
33	53° 10′	2° 59′	149	53° 10′	2° 59′
	36.463" N	19.214″ E		33.721″ N	17.066" E
34	53° 10′	2° 59′	150	53° 10′	2° 59′
54	36.959" N	19.398" E	150	34.141" N	17.541″ E
35	53° 10′	2° 59′	151	53° 10′	2° 59′
55	37.461″ N	19.531" E	131	34.578" N	17.972" E
26	53° 10′	2° 59′	150	53° 10′	2° 59′
36	37.966" N	19.610″ E	152	35.031" N	18.356" E
	53° 10′	2° 59′	1.50	53° 10′	2° 59′
37	38.474″ N	19.637" E	153	35.497" N	18.692″ E
	53° 10′	2° 59′		53° 10′	2° 59′
38	38.982" N	19.610″ E	154	35.975" N	18.978″ E
	53° 10′	2° 59′		53° 10′	2° 59′
39	39.488″ N	19.531" E	155	36.463″ N	19.214" E
	53° 10′	2° 59′		53° 10′	2° 59′
40	39.990" N	19.399″ E	156	36.959" N	19.398″ E
	53° 10'	2° 59′		53° 10′	19.590 E 2° 59'
41	40.485" N	2 39 19.214″ E	157	37.461" N	2 59 19.531" E
42	53° 10′	2° 59′	158	53° 10′	2° 59′ 10 (10″ E
	40.973" N	18.978″ E		37.966" N	19.610″ E
43	53° 10′	2° 59′	159	53° 10′	2° 59′
	41.451" N	18.692″ E		38.474" N	19.637" E
44	53° 10′	2° 59′	160	53° 10′	2° 59′
	41.918" N	18.356" E	100	38.982" N	19.610" E
45	53° 10′	2° 59′	161	53° 10′	2° 59′
15	42.370" N	17.972" E	101	39.488″ N	19.531" E
46	53° 10′	2° 59′	162	53° 10′	2° 59′
τυ	42.807" N	17.542″ E	102	39.990" N	19.399" E
47	53° 10′	2° 59′	163	53° 10′	2° 59′
4/	43.228" N	17.067" E	105	40.485" N	19.214" E
40	53° 10′	2° 59′	164	53° 10′	2° 59′
48	43.629" N	16.548″ E	164	40.973" N	18.978" E
40	53° 10′	2° 59′	165	53° 10′	2° 59′
49	44.010" N	15.989" E	165	41.451″ N	18.692″ E

	500 101	20 501		500 101	20.504
50	53° 10′ 44.369″ N	2° 59′ 15.391″ E	166	53° 10′ 41.918″ N	2° 59′ 18.356″ E
	44.309 IN 53° 10′	13.391 E 2° 59′		41.918 IN 53° 10'	18.550 E 2° 59′
51	44.705" N	2 39 14.757" E	167	42.370" N	2 39 17.972″ E
	53° 10′	2° 59′		53° 10′	2° 59′
52	45.017" N	14.089" E	168	42.807" N	17.542″ E
	53° 10′	2° 59′		53° 10′	2° 59′
53	45.302" N	13.389" E	169	43.228″ N	17.067" E
E 4	53° 10′	2° 59′	170	53° 10′	2° 59′
54	45.561" N	12.661″ E	170	43.629" N	16.548" E
55	53° 10′	2° 59′	171	53° 10′	2° 59′
55	45.792" N	11.908" E	1/1	44.010" N	15.989" E
56	53° 10′	2° 59′	172	53° 10′	2° 59′
50	45.993" N	11.132″ E	172	44.369" N	15.391" E
57	53° 10′	2° 59′	173	53° 10′	2° 59′
	46.166" N	10.336" E	1,0	44.705" N	14.757" E
58	53° 10′	2° 59′ 9.524″	174	53° 10′	2° 59′
	46.307" N	E		45.017" N	14.089" E
59	53° 10′ 46.418″ N	2° 59′ 8.699″ E	175	53° 10′ 45.302″ N	2° 59′ 13.389″ E
	40.418 IN 53° 10′	—		43.302 IN 53° 10′	13.389 E 2° 59'
60	46.498" N	2° 59′ 7.864″ E	176	45.561" N	2 59 12.661" E
	53° 10′	2° 59′ 7.022″		53° 10′	12.001 L 2° 59′
61	46.545" N	E 59 7.022	177	45.792" N	11.908" E
	53° 10′			53° 10′	2° 59′
62	46.561" N	E 0.170	178	45.993" N	11.132″ E
<i>(</i>)	53° 10′	2° 59′ 5.331″	170	53° 10′	2° 59′
63	46.545″ N	Е	179	46.166" N	10.336" E
64	53° 10′	2° 59′ 4.489″	180	53° 10′	2° 59′ 9.524″
04	46.498" N	Е	180	46.307" N	Е
65	53° 10′	2° 59′ 3.654″	181	53° 10′	2° 59′ 8.699″
00	46.418″ N	Е	101	46.418″ N	Е
66	53° 10′	2° 59′ 2.829″	182	53° 10′	2° 59′ 7.864″
	46.307" N	E		46.498" N	E
67	53° 10′ 46.166″ N	2° 59′ 2.017″ E	183	53° 10′ 46.545″ N	2° 59′ 7.022″ E
	40.100 IN 53° 10′			40.343 IN 53° 10′	
68	55 10 45.993" N	2° 59′ 1.221″ E	184	46.561" N	2° 59′ 6.176″ E
	53° 10′	2° 59' 0.445"		53° 10′	2° 59′ 5.331″
69	45.792" N	E 57 0.445	185	46.545" N	E 57 5.551
	53° 10′	2° 58′		53° 10′	2° 59′ 4.489″
70	45.561″ N	59.691" E	186	46.498″ N	E
71	53° 10′	2° 58′	107	53° 10′	2° 59′ 3.654″
71	45.302" N	58.964" E	187	46.418″ N	Е
72	53° 10′	2° 58′	188	53° 10′	2° 59′ 2.829″
12	45.017" N	58.264″ E	100	46.307" N	Е
73	53° 10′	2° 58′	189	53° 10′	2° 59′ 2.017″
10	44.705" N	57.596" E	107	46.166" N	Е
74	53° 10′	2° 58′	190	53° 10′	2° 59′ 1.221″
	44.369" N	56.962" E		45.993" N	E 2º 50/ 0 445″
75	53° 10′ 44.010″ N	2° 58′ 56.364″ E	191	53° 10′ 45.792″ N	2° 59′ 0.445″ E
	44.010 N 53° 10'	2° 58′		43.792 IN 53° 10′	E 2° 58'
76	43.629" N	2 58 55.804" E	192	45.561" N	2 58 59.691" E
	10.027 11	55.001 L		10.001 11	57.071 L

77	53° 10′ 43.228″ N	2° 58′ 55.286″ E	193	53° 10′ 45.302″ N	2° 58′ 58.964″ E
78	53° 10′ 42.807″ N	2° 58′ 54.811″ E	194	53° 10′ 45.017″ N	2° 58′ 58.264″ E
79	53° 10′ 42.370″ N	2° 58′ 54.380″ E	195	53° 10′ 44.705″ N	2° 58′ 57.596″ E
80	53° 10′	2° 58′	196	53° 10′	2° 58′
81	41.918" N 53° 10'	53.997" E 2° 58'	197	44.369" N 53° 10'	56.962" E 2° 58'
	41.451" N 53° 10′	53.661" E 2° 58'		44.010" N 53° 10'	56.364" E 2° 58'
82	40.973" N 53° 10'	53.374″ E 2° 58′	198	43.629" N 53° 10'	55.804" E 2° 58'
83	40.485" N	53.139″ E	199	43.228" N	55.286" E
84	53° 10′ 39.990″ N	2° 58′ 52.954″ E	200	53° 10′ 42.807″ N	2° 58′ 54.811″ E
85	53° 10′ 39.488″ N	2° 58′ 52.822″ E	201	53° 10′ 42.370″ N	2° 58′ 54.380″ E
86	53° 10′ 38.982″ N	2° 58′ 52.742″ E	202	53° 10′ 41.918″ N	2° 58′ 53.997″ E
87	53° 10′ 38.474″ N	2° 58′ 52.716″ E	203	53° 10′ 41.451″ N	2° 58′ 53.661″ E
88	53° 10′ 37.966″ N	2° 58′ 52.742″ E	204	53° 10′ 40.973″ N	2° 58′ 53.374″ E
89	53° 10′	2° 58′	205	53° 10′	2° 58′
90	37.461" N 53° 10'	52.822" E 2° 58'	206	40.485" N 53° 10'	53.139" E 2° 58'
	36.959" N 53° 10'	52.954" E 2° 58'		39.990" N 53° 10'	52.954" E 2° 58'
91	36.463" N 53° 10'	53.139" E 2° 58'	207	39.488" N 53° 10'	52.822" E 2° 58'
92	35.975" N	53.375" E	208	38.982" N	52.742" E
93	53° 10′ 35.497″ N	2° 58′ 53.661″ E	209	53° 10′ 38.474″ N	2° 58′ 52.716″ E
94	53° 10′ 35.031″ N	2° 58′ 53.997″ E	210	53° 10′ 37.966″ N	2° 58′ 52.742″ E
95	53° 10′ 34.578″ N	2° 58′ 54.381″ E	211	53° 10′ 37.461″ N	2° 58′ 52.822″ E
96	53° 10′ 34.141″ N	2° 58′ 54.812″ E	212	53° 10′ 36.959″ N	2° 58′ 52.954″ E
97	53° 10′ 33.721″ N	2° 58′ 55.287″ E	213	53° 10′ 36.463″ N	2° 58′ 53.139″ E
98	53° 10′ 33.319″ N	2° 58′ 55.805″ E	214	53° 10′ 35.975″ N	2° 58′ 53.375″ E
99	53° 10′	2° 58′	215	53° 10′	2° 58′
100	32.938" N 53° 10'	56.364" E 2° 58'	216	35.497" N 53° 10'	53.661" E 2° 58'
	32.579" N 53° 10'	56.962" E 2° 58'		35.031" N 53° 10′	53.997" E 2° 58'
101	32.243" N 53° 10'	57.597" E 2° 58'	217	34.578" N 53° 10'	54.381" E 2° 58'
102	31.932" N	58.265" E	218	34.141" N	54.812" E
103	53° 10′ 31.646″ N	2° 58′ 58.964″ E	219	53° 10′ 33.721″ N	2° 58′ 55.287″ E

105 $53^{\circ} 10'$ $31.157" N$ $2^{\circ} 59' 0.445"$ E 221 $53^{\circ} 10'$ $32.938" N2^{\circ} 58'56.364" E10653^{\circ} 10'2^{\circ} 59' 1.221"22253^{\circ} 10'53^{\circ} 10'2^{\circ} 58'$	
106	
30.955" N E 32.579" N 56.962" E	
107 53° 10' 2° 59' 2.017" 223 53° 10' 2° 58' 30.783" N E 32.243" N 57.597" E	
108 53° 10' 2° 59' 2.829" 224 53° 10' 2° 58' 30.641" N E 224 31.932" N 58.265" E	
109 53° 10' 2° 59' 3.654" 225 53° 10' 2° 58' 30.531" N E 225 31.646" N 58.964" E	
110 53° 10' 2° 59' 4.489" 226 53° 10' 2° 58' 30.451" N E 226 31.388" N 59.692" E	
111 53° 14' 3° 3' 31.257" 227 53° 10' 2° 59' 0.445 28.789" N E 227 31.157" N E	5″
112 52° 56' 3° 8' 41.012" 228 53° 10' 2° 59' 1.221 14.962" N E 30.955" N E	l″
113 52° 54' 2° 58' 229 53° 10' 2° 59' 2.017 27.033" N 15.457" E 229 30.783" N E	7″
114 52° 54′ 2° 58′ 230 53° 10′ 2° 59′ 2.829 11.424″ N 22.820″ E 230 30.641″ N E	<i>)</i> ″
115 52° 53' 2° 58' 231 53° 10' 2° 59' 3.654 56.239" N 29.982" E 231 30.531" N E	1 ″
116 52° 49' 2° 56' 232 53° 10' 2° 59' 4.489 50.103" N 54.167" E 232 30.451" N E	<i>)</i> ″

PART 3

Details of Licensed Marine Activities

1. Subject to the licence conditions at Part 4, this licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea of the substances and articles specified in paragraph 5 of Part 2 of this licence;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation;
- (d) the disposal of up to a total of 37,698,890 m³ of inert material of natural origin within the offshore Order limits produced during construction drilling or seabed preparation for foundation works and cable (including fibre optic cable) sandwave preparation works at disposal site reference HU217 within the extent of the Order limits seaward of MHWS, comprising—
 - (i) 36,000,000 m³ for cable and fibre optic cable installation;
 - (ii) 1,648,824 m³ for the wind turbine generators;
 - (iii) 37,500 m³ for the offshore service platform; and
 - (iv) 12,566 m³ for the meteorological masts; and
- (e) the removal of static fishing equipment; and
- (f) the disposal of drill arisings in connection with any foundation drilling up to a total of 399,776 m³
- 2.—(1) Such activities are authorised in relation to the construction, maintenance and operation

of (in the event of scenario 1 and scenario 2 unless otherwise stated below)----

Work No. 1 (phase 1) in the event of scenario 1 and scenario 2-

- (a) an offshore wind turbine generating station with <u>a gross electrical output of over 100 MWan electrical export capacity of up to 1,800 MW at the point of connection to the offshore electrical platform(s) referred to at Work No. 2 comprising up to 1<u>37</u>58 wind turbine generators each fixed to the seabed by one of the following foundation types: monopile (piled or suction caisson), jacket (piled or suction caisson), gravity base or tetrabase fitted with rotating blades and situated within the area shown on the works plan and further comprising (b) to (e) below;</u>
- (b) up to one offshore service platform fixed to the seabed within the area shown on the works plan by one of the following foundation types: jacket (piled or suction caisson) or gravity base;
- (c) up to two meteorological masts fixed to the seabed within the area shown on the works plan by one of the following foundation types: monopile (piled or suction caisson), jacket (piled or suction caisson) or gravity base;
- (d) up to two LIDAR measurement buoys fixed to the seabed within the area shown on the works plan by one of the following foundation types: monopile (piled) or floating and up to two wave measurement buoys fixed to the seabed within the area shown on the works plan by one foundation type (floating); and
- (e) a network of subsea array cables and fibre optic cables within the area shown on the works plan between the wind turbine generators, and between the wind turbine generators and Work No.2 including one or more offshore cable crossings.

In the event of scenario 1-

(f) a network of subsea cables and fibre optic cables connecting wind turbine generators within

 (a) above to an offshore electrical platform within Norfolk Vanguard East including one or
 more offshore cable crossings.

(2) In connection with such Work No. 1 and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence including:

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work No. 1 and the disposal of up to a total of 37,698,890 m³ of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works, cable installation preparation such as sandwave clearance, boulder clearance and pre-trenching and excavation of horizontal directional drilling exit pits; and
- (d) removal of static fishing equipment;

(3) In connection with such Work No. 1, ancillary works within the Order limits which have been subject to an environmental impact assessment recorded in the environmental statement comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction and/ or maintenance of the authorised scheme; and
- (b) beacons, fenders and other navigational warning or ship impact protection works.

PART 4

Conditions

Design parameters

1.—(1) Subject to paragraph (2), each wind turbine generator forming part of the authorised scheme must not—

- (a) exceed a height of 350 metres when measured from HAT to the tip of the vertical blade;
- (b) exceed a height of 198.5 metres to the height of the centreline of the generator shaft forming part of the hub when measured from HAT;
- (c) exceed a rotor diameter of 303 metres;
- (d) be less than 800 metres from the nearest wind turbine generator in either direction perpendicular to the approximate prevailing wind direction (crosswind) or be less than 800 metres from the nearest wind turbine generator in either direction which is in line with the approximate prevailing wind direction (downwind); or
- (e) have a draught height which is less than the minimum draught height specified for the relevant wind turbine generator capacity in the table below—

Wind Turbine Generator Capacity	Minimum draught height
Up to and including 14.6MW	35m from MHWS
14.7 MW and above	30m from MHWS

(2) References to the location of a wind turbine generator in paragraph (1) above are references to the centre point of that turbine.

2.—(1) The dimensions of any offshore service platform forming part of the authorised scheme must not exceed 100 metres in height when measured from HAT, 90 metres in length and 60 metres in width.

(2) Each meteorological mast must not exceed a height of 200 metres above HAT.

(3) Each meteorological mast must not have more than one supporting foundation.

3. The total length of the cables and the area and volume of their cable protection must not exceed the individual distributions set out in Table 2 of the outline scour protection and cable protection plan and must not exceed the following—

Work	Length	Cable protection (m^3)	<i>Cable protection</i> (m^2)
Work No. 1(e) and	600 kilometres	198,500 m ³	389,000 m ²
(f) (array)			

4.—(1) In relation to a wind turbine generator, each foundation using piles must not have—

- (a) more than four driven piles;
- (b) in the case of single pile structures, a pile diameter which is more than 15 metres; or
- (c) in the case of two or more pile structures, have a pile diameter which is more than five metres.

(2) In relation to a wind turbine generator, each foundation must not have a seabed footprint area (excluding scour protection) of greater than $1,963m^2$.

5.—(1) In relation to a meteorological mast, each foundation using piles must not have—

- (a) more than four driven piles;
- (b) in the case of single pile structures, a pile diameter which is more than 10 metres; or
- (c) in the case of two or more pile structures, have a pile diameter which is more than three metres.

(2) In relation to a meteorological mast, each foundation must not have a seabed footprint area (excluding scour protection) of greater than 314 m^2 .

6.—(1) In relation to an offshore service platform, each foundation using piles must nothave—

- (a) more than six driven piles; or
- (b) a pile diameter which is more than three metres.
- (2) In relation to an offshore service platform, each foundation must not have a seabed footprint

area (excluding scour protection) of greater than 7,500 m².

7.—(1) In relation to any LIDAR measurement buoys, each foundation using piles must not have a pile diameter of greater than 10 metres.

(2) In relation to any LIDAR measurement buoys, each foundation must not have a seabed footprint area (excluding scour protection) of greater than 78.5 m^2 per buoy and 157 m^2 in total.

(3) In relation to any wave measurement buoys, each foundation must not have a seabed footprint area (excluding scour protection) of greater than $150m^2$ per buoy and $300 m^2$ in total.

Phasing of the authorised scheme and scenarios

8.—(1) Taken together with works authorised and proposed to be constructed pursuant to licence 2 (generation)—

- (a) the total electrical export capacity of the authorised scheme must not exceed 1,800MW at the point of connection to the offshore electrical platform(s);
- (b)(a) the total number of wind turbine generators forming part of the authorised scheme must not exceed 1<u>37</u>58;
- (c)(b) the total number of offshore service platforms forming part of the authorised scheme must not exceed one;
- (d)(c) the total number of meteorological masts forming part of the authorised scheme must not exceed two;
- (e)(d) the total number of LIDAR measurement buoys forming part of the authorised scheme must not exceed two;
- (f)(e) the total number of wave measurement buoys forming part of the authorised scheme must not exceed two;
- (g)(f) the total amount of scour protection for the wind turbine generators, offshore service platform, meteorological masts and measurement buoys forming part of the authorised scheme must not exceed 25,834,269 m³ and 5,166,854 m² and must not exceed the distributed quantities of scour protection set out in Table 1 of the outline scour protection and cable protection plan;
- (h)(g) the total amount of inert material of natural origin disposed within the offshore Order limits as part of the authorised scheme must not exceed 37,698,890 m³;
- (i)(h) the total amount of disposal for drill arisings in connection with any foundation drilling must not exceed 399,776 m³; and
- (j)(i) the total length of cable and the amount of cable protection must not exceed the figures stated in condition 3 of this licence.

(2) Prior to commencement of the authorised scheme the undertaker must give notice to the MMO detailing:

- (a) whether the authorised scheme will be
 - (i) commenced under scenario 1 or scenario 2; and
 - (ii) constructed in a single offshore phase under this licence or in two offshore phases under this licence and licence 2 (generation).

(3) Where the authorised scheme will be constructed in two offshore phases the undertaker must give notice to the MMO detailing —

- (a) prior to the commencement of phase 1, the total number of wind turbine generators offshore service platform, meteorological masts, LIDAR measurement buoys and wave measurement buoys to be constructed in that phase; and
- (b) prior to the commencement of phase 2, the total number of wind turbine generators offshore service platform, meteorological masts, LIDAR measurement buoys and wave measurement buoys to be constructed in that phase.

Notifications and inspections

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

- (a) a copy of this licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 17; and
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 17; and
- (b) within 28 days of receipt of a copy of this licence those persons referred to in paragraph(a) above must provide a completed confirmation form to the MMO confirming receipt of this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 17 are permitted to carry out the licensed activities.

(3) Copies of this licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
- (c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.

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

(5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Coastal Office in writing at least five days prior to the commencement of the licensed activities or any part of them, and within five days of completion of the licensed activities.

(7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details regarding the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—

- (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
- (b) as soon as reasonably practicable and no later than 24 hours of completion of construction of all offshore activities;

and confirmation of notification must be provided to the MMO within five days.

(8) A notice to mariners must be issued at least ten days prior to the commencement of the licensed activities or any part of them advising of the start date of Work No. 1 (wind turbine generators or other offshore construction activities including array cables and fibre optic cables) and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(9) The notices to mariners must be updated and reissued at weekly intervals during construction activities and at least five days before any planned operations and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under condition 14(1)(b). Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(10) The undertaker must notify the UK Hydrographic Office both of the commencement (ten days prior), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days.

(11) In case of damage to, or destruction or decay of the authorised scheme seaward of MHWS or any part thereof, the undertaker must as soon as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify MMO, MCA, Trinity House, the Kingfisher Information Service of Seafish, and the UK Hydrographic Office. (12) In case of exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners by issuing a notice to mariners and by informing Kingfisher Information Service of the location and extent of exposure. Copies of all notices must be provided to the MMO and MCA within five days.

Aids to navigation

10.—(1) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS exhibit such lights, marks, sounds, signals and other aids to navigation, and to take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

(2) The undertaker must during the period from the start of construction of the authorised scheme to completion of decommissioning seaward of MHWS keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MHWS including the following—

- (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 five days of completion of construction of the authorised scheme.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation as set out in the aids to navigation management plan agreed pursuant to condition 14(1)(k) using the reporting system provided by Trinity House.

(4) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS notify Trinity House and the MMO of any failure of the aids to navigation and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 9(11) and condition 9(12) are invoked, the undertaker must lay down such marker buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Colouring of structures

11.—(1) Except as otherwise required by Trinity House the undertaker must colour all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height directed by Trinity House, or must colour the structure as directed by Trinity House from time to time.

(2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Chemicals, drilling and debris

12.—(1) Unless otherwise agreed in writing by the MMO all chemicals used in the construction of the authorised scheme, including any chemical agents placed within any monopile void, must be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002³ (as amended).

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

(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 inform the MMO of the location and quantities of material disposed of each month under this licence. This information must be submitted to the MMO by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive. In the event that no activity has taken place during the reporting period

³ S.I. 2002/1355.

the undertaker must provide a null (0) return to the MMO.

(5) The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within disposal site reference HU217 within the extent of the Order limits seaward of MHWS. Any other materials must be screened out before disposal of the inert material at this site.

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

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

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

(9) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 14(1)(d)(i).

(10) All dropped objects must be reported to the MMO using the Dropped Object Procedure Form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of the Dropped Object Procedure Form, the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so.

Force majeure

13.—(1) If, due to stress of weather or any other cause the master of a vessel determines that it is necessary to make a deposit which is not authorised under this licence whether within or outside of the Order limits because the safety of human life and/or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

(2) The unauthorised deposits must be removed at the expense of the undertaker unless written approval is obtained from the MMO.

Pre-construction plans and documentation

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

- (a) A design plan at a scale of between 1:25,000 and 1:50,000 including detailed representation on the most suitably scaled admiralty chart, to be agreed in writing with the MMO in consultation with Trinity House and the MCA which shows, in accordance with the Development Principles—
 - (i) the proposed location and choice of foundation of all wind turbine generators, offshore electrical platforms, offshore service platform and meteorological masts;
 - (ii) the height to the tip of the vertical blade of all wind turbine generators;
 - (iii) the height to the centreline of the generator shaft forming part of the hub of all wind turbine generators;
 - (iv) the rotor diameter and spacing of all wind turbine generators;
 - (v) the height of all lattice towers forming part of all meteorological masts;
 - (vi) the height, length and width of all offshore service platform;
 - (vii) the dimensions of all foundations;
 - (viii) the length and arrangement of all cables (including fibre optic cables) comprising Work No. 1(e);
 - (ix) the proposed layout of all wind turbine generators (in accordance with the

recommendations for layout contained in MGN543 and its annexes), offshore service platform and meteorological masts including any exclusion zones identified under sub-paragraph (1)(h)(iv);

- (x) a plan showing the indicative layout of all wind turbine generators, offshore service platform and meteorological masts including all exclusion zones (insofar as not shown in (ix) above) and showing the indicative programming of particular works as set out in the indicative programme to be provided under sub-paragraph (1)(b)(iv);
- (xi) any exclusion zones/micrositing requirements identified in any mitigation scheme pursuant to sub-paragraph (1)(i); and
- (xii) the grid coordinates of the centre point of the proposed location for each wind turbine generator, offshore electrical platform, substation and meteorological mast.

to ensure conformity with the description of Work No. 1 and compliance with conditions 1 to 8 above.

- (b) A construction programme and monitoring plan (which accords with the offshore in principle monitoring plan) to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant delivery of materials and installation works;
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with sub-paragraph (1)(h) and conditions 17, 18, 19 and 20; and
 - (iv) an indicative written construction programme for all wind turbine generators offshore service platform, meteorological masts, measurement buoys and cables (including fibre optic cables) comprised in the works in Part 3 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above);

with details pursuant to paragraph (iii) above to be submitted to the MMO in accordance with the following—

- (aa) at least four months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
- (bb) at least four months prior to construction, detail on construction monitoring; and
- (cc) at least four months prior to commissioning, detail of post-construction (and operational) monitoring;

unless otherwise agreed in writing with the MMO.

- (c) A construction method statement in accordance with the construction methods assessed in the environmental statement and including details of—
 - (i) foundation installation methodology, including drilling methods and disposal of drill arisings and material extracted during seabed preparation for foundation works, and having regard to any mitigation scheme pursuant to sub-paragraph (1)(i);
 - (ii) soft start procedures with specified duration periods;
 - (iii) cable (including fibre optic cable) installation;
 - (iv) contractors;
 - (v) vessels, vessels maintenance and vessel transit corridors; and
 - (vi) associated and ancillary works.
- (d) A project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation 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 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;
- (iv) the appointment and responsibilities of a fisheries liaison officer;
- (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of commencement of licensed activities pursuant to condition 9 and to address the interaction of the licensed activities with fishing activities; and
- (vi) procedures to be followed within vessels transit corridors to minimise disturbance to red-throated diver during operation and maintenance activities.
- (e) A scour protection and cable protection plan (in accordance with the outline scour protection and cable protection plan) providing details of the need, type, sources, quantity, distribution and installation methods for scour protection and cable (including fibre optic cable) protection. For the avoidance of doubt "distribution" in this sub– paragraph must include quantities in respect of each structure comprised in the offshore works and intended to be subject to scour protection.
- (f) In the event that piled foundations are proposed to be used, at least six months prior to commencement of licensed activities, a marine mammal mitigation protocol, in accordance with the draft marine mammal mitigation protocol, the intention of which is to prevent injury to marine mammals and following current best practice as advised by the relevant statutory nature conservation bodies.
- (g) A cable specification, installation and monitoring plan, to include—
 - (i) technical specification of offshore cables (including fibre optic cables) below MHWS, 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 detailed cable (including fibre optic cables) laying plan for the Order limits, incorporating a burial risk assessment, encompassing the identification of any cable protection that exceeds 5% of navigable depth referenced to chart datum and, in the event that any area of cable protection exceeding 5% of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House) to be taken to ensure existing and future safe navigation is not compromised or such similar assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and
 - (iii) proposals for monitoring offshore cables (including fibre optic cables) including cable protection during the operational lifetime of the authorised scheme which includes a risk based approach to the management of unburied or shallow buried cables.
- (h) An archaeological written scheme of investigation in relation to the offshore Order limits seaward of mean high water, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body to include—
 - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
 - (v) monitoring of archaeological exclusion zones during and post construction;
 - (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS (Online Access to the Index of archaeological investigations) form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO that the OASIS form has been submitted to the National Record of the Historic Environment within two weeks of submission;
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material

during construction, operation and decommissioning of the authorised scheme; and

- (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order Limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities.
- (i) A mitigation scheme for any habitats of principal importance identified by the survey referred to in condition 18(2)(a) and in accordance with the offshore in principle monitoring plan.
- (j) An offshore operations and maintenance plan, in accordance with the outline offshore operations and maintenance plan, to be submitted to the MMO at least four months prior to commencement of operation of the licensed activities and to provide for review and resubmission every three years during the operational phase.
- (k) An aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, to include details of how the undertaker will comply with the provisions of condition 10 for the lifetime of the authorised scheme.
- (l) In relation to ornithological monitoring-
 - (i) a plan setting out the aims, objectives and timing for ornithological monitoring which must be submitted to the MMO (in consultation with the relevant statutory nature conservation body) at least four months prior to the first pre-construction survey (as referred to in condition 14(1)(b)(aa)), and
 - (ii) an ornithological monitoring plan setting out the methods for ornithological monitoring which must be submitted to the MMO (in consultation with the relevant statutory nature conservation body) in accordance with the details and timescales approved pursuant to the plan referred to in sub-paragraph (i).
- (m) In the event that piled foundations are proposed to be used, at least six months prior to commencement of licensed activities, a site integrity plan which accords with the principles set out in the in principle Norfolk Boreas Southern North Sea Special Area of Conservation Site Integrity Plan, and which the MMO is satisfied would provide such mitigation as is necessary to avoid adversely affecting the integrity (within the meaning of the 2017 Regulations) of a relevant site, to the extent that harbour porpoise are a protected feature of that site.

(2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific written scheme of investigation which is itself in accordance with the details set out in the outline offshore written scheme of investigation (offshore), and which has been submitted to and approved by the MMO.

(3) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive the pile foundations must not exceed—

- (a) 5,000kJ in respect of monopile foundations; and
- (b) 2,700kJ in respect of pin piles.

15.—(1) Any archaeological reports produced in accordance with condition 14(1)(h)(iii) must be agreed with the MMO in consultation with the statutory historic body.

(2) The design plan required by condition 14(1)(a) must be prepared by the undertaker and determined by the MMO in accordance with the Development Principles.

(3) Each programme, statement, plan, protocol or scheme required to be approved under condition 14 must be submitted for approval at least four months prior to the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(4) No licensed activity may commence until for that licensed activity the MMO has approved in writing any relevant programme, statement, plan, protocol or scheme required to be approved under condition 14.

(5) Unless otherwise agreed in writing with the undertaker, the MMO must use reasonable endeavours to determine an application for approval made under condition 14 as soon as practicable and in any event, within a period of four months commencing on the date the application is received by the MMO.

(6) The licensed activities must be carried out in accordance with the plans, protocols, statements, schemes and details approved under condition 14, unless otherwise agreed in writing by the MMO.

(7) No part of the authorised scheme may commence until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed MCA recommendations as appropriate to the authorised scheme contained within MGN543 "Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues" and its annexes.

Post-construction plans and documents

16. The undertaker must conduct a swath bathymetric survey to IHO S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out and provide the data and survey report(s) to the MMO, MCA and UKHO.

Reporting of engaged agents, contractors and vessels

17.—(1) The undertaker must provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO in writing prior to the agent, contractor or vessel engaging in the licensed activities.

Pre-construction monitoring and surveys

18.—(1) The undertaker must, in discharging condition 14(1)(b), submit details (which accord with the offshore in principle monitoring plan) for written approval by the MMO in consultation with the relevant statutory bodies of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report; and—

- (a) the survey proposals 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 and/or will enable the validation or otherwise of key predictions in the environmental statement; and
- (b) 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 preconstruction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

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

- (a) undertake appropriate surveys to determine the location and extent of any benthic communities/benthos constituting Annex 1 reef habitats of principal importance in whole or in part inside the area(s) within the Order limits in which it is proposed to carry out construction works;
- (b) undertake a full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works;
- (c) undertake any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with condition 14(1)(l); and
- (d) undertake or contribute to any marine mammal monitoring referred to in the in principle monitoring plan submitted in accordance with condition 14(1)(b).

(3) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation bodies.

Construction monitoring

19.—(1) The undertaker must, in discharging condition 14(1)(b), submit details (which accord with the offshore in principle monitoring plan) for approval by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme.

(2) The survey proposals must specify each survey's objectives. In the event that driven or partdriven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.

(3) The undertaker must carry out the surveys approved under sub-paragraph (1), including any further noise monitoring required in writing by the MMO, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(4) The results of the initial noise measurements monitored in accordance with sub-paragraph (1) must be provided to the MMO within six weeks of the installation of the first four piled foundations of each piled foundation type. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the opinion of the MMO in consultation with the relevant statutory nature conservation body, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have been agreed.

(4) Construction monitoring must include traffic monitoring in accordance with the outline marine traffic monitoring strategy, including the provision of reports on the results of that monitoring periodically as requested by the MMO in consultation with the MCA and Trinity House.

(5) In the event that piled foundations are proposed to be used, the details submitted in accordance with the offshore in principle monitoring plan must include proposals for monitoring marine mammals.

Post construction

20.—(1) The undertaker must, in discharging condition 14(1)(b), submit details (which accord with the offshore in principle monitoring plan) for approval by the MMO in consultation with relevant statutory bodies of proposed post-construction surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals 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 and/or will enable the validation or otherwise of key predictions in the environmental statement.

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

- (a) undertake an appropriate survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance constituting Annex 1 reef habitats identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey;
- (b) undertake, within twelve months of completion of the licensed activities, one full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables (including fibre optic cables) have been buried or protected;
- (c) undertake any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with condition 14(1)(l);
- (d) undertake post-construction traffic monitoring in accordance with the outline marine traffic monitoring strategy, including the provision of reports on the results of that monitoring periodically as requested by the MMO in consultation with the MCA and Trinity House;

and

(e) undertake or contribute to any marine mammal monitoring referred to in the in principle monitoring plan submitted in accordance with condition 14(1)(b).

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

(4) Following installation of cables (including fibre optic cables), the cable monitoring plan required under condition 14(1)(g)(iii) must be updated with the results of the post installation surveys. The plan must be implemented during the operational lifetime of the authorised scheme and reviewed as specified within the plan, following cable burial surveys, or as instructed by the MMO.

Reporting of impact pile driving

21.—(1) Only when driven or part-driven pile foundations are proposed to be used as part of the foundation installation the undertaker must provide the following information to the UK Marine Noise Registry—

- (a) prior to the commencement of the licenced activities, information on the expected location, start and end dates of impact pile driving to satisfy the Marine Noise Registry's Forward Look requirements;
- (b) at six month intervals following the commencement of pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements; and
- (c) within 12 weeks of completion of impact pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements.

(2) The undertaker must notify the MMO of the successful submission of Forward Look or Close Out data pursuant to paragraph (1) above within 7 days of the submission.

(3) For the purpose of this condition—

"Marine Noise Registry" means the database developed and maintained by JNCC on behalf of Defra to record the spatial and temporal distribution of impulsive noise generating activities in UK seas; and

"Forward Look" and "Close Out" requirements are as set out in the UK Marine Noise Registry Information Document Version 1 (July 2015) or any updated information document.

Reporting of scour and cable protection

22.—(1) Not more than 4 months following completion of the construction phase of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection and scour protection used for the authorised scheme.

(2) The report must include the following information—

- (a) location of the cable protection and scour protection;
- (b) volume of cable protection and scour protection; and
- (c) any other information relating to the cable protection as agreed between the MMO and the undertaker.

Completion of construction

23.—(1) The undertaker must submit a close out report to the MMO and the relevant statutory nature conservation body within three months of the date of completion of construction. The close out report must confirm the date of completion of construction and must include the following details—

- (a) the final number of installed turbine generators;
- (b) the installed wind turbine generator parameters relevant for ornithological collision risk

modelling.

(2) Following completion of construction, no further construction activities can be undertaken under this licence.

SCHEDULE 10

Article 32

Deemed Licence under the 2009 Act – Generation Assets (Licence 2 – Phase 2)

PART 1

Interpretation

1.—(1) In this licence—

"the 2004 Act" means the Energy Act 2004;

"the 2008 Act" means the Planning Act 2008;

"the 2009 Act" means the Marine and Coastal Access Act 2009;

"the 2011 Regulations" means the Marine Licensing (Licence Application Appeals) Regulations 2011⁴;

"the 2017 Regulations" means the Conservation of Offshore Marine Habitats and Species Regulations 2017⁵;

"authorised deposits" means the substances and articles specified in paragraph 5 of Part 2 of this licence;

"authorised scheme" means Work No. 1 described in Part 3 of this licence or any part of that work;

"cable protection" means measures for offshore cable crossings and where cable burial is not possible due to ground conditions or approaching offshore structures, to protect cables and fibre optic cables and prevent loss of seabed sediment by use of grout bags, protective aprons, mattresses, flow energy dissipation (frond) devices or rock and gravel dumping;

"commence" means the first carrying out of any part of the licensed activities save for preconstruction surveys and monitoring and "commenced" and "commencement" must be construed accordingly;

"condition" means a condition in Part 4 of this licence;

"Defence Infrastructure Organisation Safeguarding" means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands B75 7RL and any successor body to its functions;

"Development Principles" means the document certified as the Development Principles by the Secretary of State for the purposes of the Order;

"draft marine mammal mitigation protocol" means the document certified as the draft marine mammal mitigation protocol by the Secretary of State for the purposes of this Order;

"draught height" means the distance between the lowest point of the rotating blade of the wind turbine generator and MHWS;

"enforcement officer" means a person authorised to carry out enforcement duties under Chapter 3 of Part 4 (marine licensing) of the 2009 Act;

"environmental statement" means the document certified as the environmental statement by the Secretary of State for the purposes of this Order;

"gravity base" means a structure principally of steel, concrete, or steel and concrete which rests on the seabed either due to its own weight with or without added ballast or additional skirts and associated materials and equipment including scour protection, J-tubes, transition piece,

⁴ S.I. 2011/934.

⁵ S.I. 2017/1013.

corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"HAT" means highest astronomical tide;

"in principle Norfolk Boreas Southern North Sea Special Area of Conservation Site Integrity Plan" means the document certified as the in principle Norfolk Boreas Southern North Sea Special area of Conservation Site Integrity Plan by the Secretary of State for the purposes of this Order;

"jacket foundation" means a steel jacket/ lattice-type structure constructed of steel which is fixed to the seabed at three or more points with steel pin piles or steel suction caissons and associated materials and equipment including scour protection, J-tubes, transition piece, corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"Kingfisher Fortnightly Bulletin" means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO for the purposes of this licence;

"licence 1 (generation)" means the licence set out in Schedule 9 (deemed licence under the 2009 Act – generation assets (licence 1 – phase 1));

"licensed activities" means the activities specified in Part 3 of this licence;

"maintain" includes inspect, upkeep, repair, adjust, and alter and further includes remove, reconstruct and replace (but only in relation to any of the ancillary works in Part 2 of Schedule 1 (ancillary works), any cable and any component part of any wind turbine generator, offshore electrical substation, offshore service platform or meteorological mast described in Part 1 of Schedule 1 (authorised development) not including the alteration, removal or replacement of foundations), to the extent assessed in the environmental statement; and "maintenance" is construed accordingly;

"Marine Management Organisation" or "MMO" means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence;

"marker buoy" means any floating device used for marker or navigation purposes, including LIDAR buoys and wave buoys;

"MCA" means the Maritime and Coastguard Agency;

"mean high water springs" or "MHWS" means the highest level which spring tides reach on average over a period of time;

"measurement buoy" means any floating device used for measurement purposes, including LIDAR buoys and wave buoys;

"meteorological mast" means a mast housing equipment to measure wind speed and other wind characteristics, including a topside housing electrical, communication and associated equipment and marking and lighting;

"monopile foundation" means a steel pile, typically cylindrical, driven and/or drilled into the seabed and associated materials and equipment including scour protection, J-tubes, transition piece, corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"Norfolk Boreas Offshore Wind Farm" means the offshore wind farm authorised pursuant to the Order

"Norfolk Vanguard Offshore Wind Farm" means the offshore wind farm for which Norfolk Vanguard Limited has sought a development consent order pursuant to an application submitted to the Secretary of State on 26th June 2018;

"Norfolk Vanguard East" means the eastern offshore wind site of the Norfolk Vanguard Offshore Wind Farm;

"notice to mariners" means a notice issued by the undertaker to mariners to inform them of issues that affect the safety of navigation;

"offshore cables" means any cables offshore;

"offshore in principle monitoring plan" means the document certified as the offshore in principle monitoring plan by the Secretary of State for the purposes of this Order; "offshore Order limits" means the limits shown on the works plan within which the authorised scheme may be carried out, whose grid coordinates are set out in Part 2 of this licence;

"offshore service platform" means a platform to house workers offshore and/or provide refuelling facilities and sheltering facilities for helicopters;

"the Order" means the Norfolk Boreas Offshore Wind Farm Order 2021;

"outline fisheries liaison and co-existence plan" means the document certified as the outline fisheries liaison and co-existence plan by the Secretary of State for the purposes of this Order;

"outline marine traffic monitoring strategy" means the document certified as the outline marine traffic monitoring strategy by the Secretary of State for the purposes of this Order;

"outline offshore operations and maintenance plan" means the document certified as the outline offshore operations and maintenance plan by the Secretary of State for the purposes of the Order;

"outline written scheme of investigation (offshore)" means the document certified as the outline written scheme of investigation (offshore) by the Secretary of State for the purposes of this Order;

"pin piles" means steel cylindrical piles driven and/or drilled into the seabed to secure steel jacket foundations;

"relevant site" means a European offshore marine site or a European site as defined in the 2017 Regulations;

"scenario 1" means the scenario in which the Norfolk Vanguard Offshore Wind Farm proceeds to construction and carries out enabling works, including the laying of onshore cable ducts, to benefit the Norfolk Boreas Offshore Wind Farm;

"scenario 2" means the scenario in which the Norfolk Vanguard Offshore Wind Farm does not proceed to construction and Norfolk Boreas Offshore Wind Farm is built out as an independent project including the laying of onshore cable ducts;

"scour protection" means measures to prevent loss of seabed sediment around any marine structure placed in or on the seabed by use of protective aprons, mattresses with or without frond devices, or rock and gravel placement.

"single offshore phase" means carrying out all offshore works as a single construction operation;

"statutory historic body" means Historic Buildings and Monuments Commission for England (Historic England) or its successor in function;

"statutory nature conservation body" means an organisation charged by government with advising on nature conservation matters;

"suction caisson" means a large diameter steel cylindrical shell which penetrates the seabed assisted by a hydrostatic pressure differential for fixity of foundations;

"tetrabase foundation" means a tripod shaped steel frame anchored under its own weight or through pin pile or suction bucket anchoring and associated materials and equipment including scour protection, J-tubes, transition piece, corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"Trinity House" means the Corporation of Trinity House of Deptford Strond;

"two offshore phases" means carrying out the offshore works as two separate construction operations;

"UK Hydrographic Office" means the UK Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

"undertaker" means Norfolk Boreas Limited (Company No. 03722058) whose registered office is at 5th Floor, 70 St Mary Axe, London EC3A 8BE;

"vessel" means every description of vessel, however propelled or moved, and includes a nondisplacement 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, rotor with up to three blades connected at the hub, nacelle and ancillary electrical and other equipment which may include corrosion protection systems, helicopter landing facilities and other associated equipment, fixed to a foundation;

"works plan" means the plan certified as the works plan by the Secretary of State for the purposes of the Order.

2. A reference to any statute, order, regulation or similar instrument is construed as 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. Unless otherwise indicated—

- (a) all times are taken to be Greenwich Mean Time (GMT); and
- (b) all co-ordinates are taken to be latitude and longitude degrees and minutes to two decimal places.

4. Except where otherwise notified in writing by the relevant organisation, the primary points of contact with the organisations listed below and the addresses for returns and correspondence are—

(a) Marine Management Organisation

Marine Licensing Lancaster House Hampshire Court Newcastle Business Park Newcastle upon Tyne NE4 7YH Tel:

(b) Marine Management Organisation (local office)

Lowestoft Office Pakefield Road Lowestoft Suffolk NR33 0HT Tel:

- (c) Trinity House Tower Hill London EC3N 4DH Tel:
- (d) The United Kingdom Hydrographic Office Admiralty Way Taunton Somerset TA1 2DN Tel: _____;
- (e) Maritime and Coastguard Agency Navigation Safety Branch
 Bay 2/20, Spring Place
 105 Commercial Road

Southampton	
SO15 1EG	
Tel:	;

- (f) Centre for Environment, Fisheries and Aquaculture Science Pakefield Road Lowestoft
 Suffolk
 NR33 0HT
 Tel: ______;
- (g) Natural England
 Area 1C, Nobel House
 17 Smith Square
 London
 SW1P 2AL
 Tel: _____;
- (h) Historic England
 Cannon Bridge House
 25 Dowgate Hill
 London
 EC4R 2YA
 Tel:

PART 2

Licensed Marine Activities – General

1. This licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme

under section 108 (reviews and revisions of decommissioning programmes), and the completion of such programme has been confirmed by the Secretary of State in writing.

2. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence only apply to a transfer not falling within article 6 (benefit of the Order).

3. With respect to any condition which requires the licensed activities be carried out in accordance with the plans, protocols or statements approved under this Schedule, the approved details, plan or scheme are taken to include any amendments that may subsequently be approved in writing by the MMO.

4. Any amendments to or variations from the approved plans, protocols or statements must be minor or immaterial and it must be demonstrated to the satisfaction of the MMO that they are unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

5. The substances or articles authorised for deposit at sea are—

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

6. The grid coordinates for the authorised scheme are specified below—

Point	Latitude (DMS)	Longitude (DMS)	Point	Latitude (DMS)	Longitude (DMS)
1	53° 14′ 28.789″ N	3° 3′ 31.257″ E	117	52° 48′ 9.945″ N	2° 51′ 14.086″ E
2	52° 56′ 14.962″ N	3° 8′ 41.012″ E	118	52° 47′ 34.455″ N	2° 46′ 27.112″ E
3	52° 52′ 14.268″ N	2° 45′ 34.286″ E	119	52° 47′ 27.872″ N	2° 45′ 34.071″ E
4	53° 3′ 46.017″ N	2° 45′ 35.676″ E	120	52° 51′ 41.636″ N	2° 45′ 34.220″ E
5	53° 8′ 27.770″ N	2° 48′ 38.429″ E	121	52° 51′ 50.970″ N	2° 46′ 27.714″ E
6	53° 13′ 52.532″ N	3° 2′ 3.556″ E	122	52° 52′ 49.498″ N	2° 52′ 4.152″ E
7	53° 13′ 53.967″ N	3° 2′ 7.131″ E	123	52° 53′ 4.385″ N	2° 51′ 57.093″ E
8	53° 13′ 59.710″ N	3° 2′ 21.440″ E	124	52° 53′ 19.948″ N	2° 51′ 49.713″ E
9	53° 14′ 8.462″ N	3° 2′ 43.249″ E	125	52° 52′ 14.268″ N	2° 45′ 34.286″ E
10	53° 14′ 21.060″ N	3° 3′ 12.673″ E	126	53° 3′ 46.017″ N	2° 45′ 35.676″ E
11	53° 10′ 30.403″ N	2° 59′ 5.331″ E	127	53° 8′ 27.770″ N	2° 48′ 38.429″ E
12	53° 10′	2° 59′ 6.176″	128	53° 13′	3° 2′ 3.556″ E

	30.387″ N	Е		52.532″ N	
13	53° 10′ 30.403″ N	2° 59′ 7.022″ E	129	53° 13′ 53.967″ N	3° 2′ 7.131″ E
14	53° 10′ 30.451″ N	2° 59′ 7.863″ E	130	53° 13′ 59.710″ N	3° 2′ 21.440″ E
15	53° 10′	2° 59′ 8.699″	131	53° 14′	3° 2′ 43.249″
16	30.531" N 53° 10'	E 2° 59′ 9.524″	132	8.462" N 53° 14'	E 3° 3′ 12.673″
17	30.641" N 53° 10′	E 2° 59′	133	21.060" N 53° 10'	E 2° 59′ 5.331″
	30.783" N 53° 10'	10.336" E 2° 59'		30.403" N 53° 10'	E 2° 59′ 6.176″
18	30.955" N	11.131" E	134	30.387" N	Е
19	53° 10′ 31.157″ N	2° 59′ 11.907″ E	135	53° 10′ 30.403″ N	2° 59′ 7.022″ E
20	53° 10′ 31.388″ N	2° 59′ 12.661″ E	136	53° 10′ 30.451″ N	2° 59′ 7.863″ E
21	53° 10′ 31.646″ N	2° 59′ 13.389″ E	137	53° 10′ 30.531″ N	2° 59′ 8.699″ E
22	53° 10′ 31.932″ N	2° 59′ 14.088″ E	138	53° 10′ 30.641″ N	– 2° 59′ 9.524″ E
23	53° 10′	2° 59′	139	53° 10′	2° 59′
24	32.243" N 53° 10'	14.756" E 2° 59'	140	30.783" N 53° 10'	10.336" E 2° 59'
	32.579" N 53° 10'	15.390" E 2° 59'		30.955" N 53° 10'	11.131" E 2° 59'
25	32.938" N 53° 10'	15.988" E 2° 59'	141	31.157" N 53° 10'	11.907" E 2° 59'
26	33.319" N	16.548" E	142	31.388″ N	12.661" E
27	53° 10′ 33.721″ N	2° 59′ 17.066″ E	143	53° 10′ 31.646″ N	2° 59′ 13.389″ E
28	53° 10′ 34.141″ N	2° 59′ 17.541″ E	144	53° 10′ 31.932″ N	2° 59′ 14.088″ E
29	53° 10′ 34.578″ N	2° 59′ 17.972″ E	145	53° 10′ 32.243″ N	2° 59′ 14.756″ E
30	53° 10′	2° 59′	146	53° 10′	2° 59′
31	35.031" N 53° 10′	18.356" E 2° 59'	147	32.579" N 53° 10'	15.390" E 2° 59'
	35.497" N 53° 10'	18.692" E 2° 59'		32.938" N 53° 10'	15.988" E 2° 59'
32	35.975" N	18.978″ E 2° 59′	148	33.319" N 53° 10'	16.548" E 2° 59'
33	53° 10′ 36.463″ N	19.214" E	149	33.721″ N	17.066" E
34	53° 10′ 36.959″ N	2° 59′ 19.398″ E	150	53° 10′ 34.141″ N	2° 59′ 17.541″ E
35	53° 10′ 37.461″ N	2° 59′ 19.531″ E	151	53° 10′ 34.578″ N	2° 59′ 17.972″ E
36	53° 10′ 37.966″ N	2° 59′ 19.610″ E	152	53° 10′ 35.031″ N	2° 59′ 18.356″ E
37	53° 10′	2° 59′	153	53° 10′	2° 59′
38	38.474" N 53° 10'	19.637" E 2° 59'	154	35.497" N 53° 10'	18.692" E 2° 59'
	38.982" N	19.610″ E		35.975" N	18.978" E

39	53° 10′	2° 59′	155	53° 10′	2° 59′
57	39.488" N	19.531" E	155	36.463" N	19.214" E
40	53° 10′	2° 59′	156	53° 10′	2° 59′
40	39.990" N	19.399" E	150	36.959" N	19.398" E
41	53° 10′	2° 59′	157	53° 10′	2° 59′
41	40.485" N	19.214" E	157	37.461" N	19.531" E
42	53° 10′	2° 59′	158	53° 10′	2° 59′
42	40.973" N	18.978" E	156	37.966" N	19.610″ E
43	53° 10′	2° 59′	159	53° 10′	2° 59′
45	41.451" N	18.692″ E	139	38.474" N	19.637" E
44	53° 10′	2° 59′	160	53° 10′	2° 59′
-+-+	41.918" N	18.356" E	100	38.982" N	19.610″ E
45	53° 10′	2° 59′	161	53° 10′	2° 59′
45	42.370" N	17.972" E	101	39.488" N	19.531" E
16	53° 10′	2° 59′	160	53° 10′	2° 59′
46	42.807" N	17.542" E	162	39.990" N	19.399" E
17	53° 10′	2° 59′	162	53° 10′	2° 59′
47	43.228" N	17.067" E	163	40.485" N	19.214" E
40	53° 10′	2° 59′	164	53° 10′	2° 59′
48	43.629″ N	16.548" E	164	40.973" N	18.978" E
40	53° 10′	2° 59′	1.65	53° 10′	2° 59′
49	44.010" N	15.989" E	165	41.451″ N	18.692″ E
50	53° 10′	2° 59′	1.00	53° 10′	2° 59′
50	44.369" N	15.391" E	166	41.918″ N	18.356" E
F 1	53° 10′	2° 59′	1.67	53° 10′	2° 59′
51	44.705″ N	14.757" E	167	42.370" N	17.972″ E
52	53° 10′	2° 59′	1.00	53° 10′	2° 59′
52	45.017" N	14.089" E	168	42.807" N	17.542″ E
52	53° 10′	2° 59′	1.00	53° 10′	2° 59′
53	45.302" N	13.389" E	169	43.228" N	17.067" E
5 4	53° 10′	2° 59′	170	53° 10′	2° 59′
54	45.561" N	12.661" E	170	43.629″ N	16.548" E
	53° 10′	2° 59′	171	53° 10′	2° 59′
55	45.792" N	11.908" E	171	44.010" N	15.989" E
57	53° 10′	2° 59′	172	53° 10′	2° 59′
56	45.993" N	11.132″ E	172	44.369" N	15.391" E
-7	53° 10′	2° 59′	172	53° 10′	2° 59′
57	46.166″ N	10.336" E	173	44.705" N	14.757" E
50	53° 10′	2° 59′ 9.524″	174	53° 10′	2° 59′
58	46.307" N	Е	174	45.017" N	14.089" E
50	53° 10′	2° 59′ 8.699″	175	53° 10′	2° 59′
59	46.418″ N	E	175	45.302" N	13.389" E
(0	53° 10′	2° 59′ 7.864″	176	53° 10′	2° 59′
60	46.498" N	Е	176	45.561" N	12.661" E
<i>c</i> 1	53° 10′	2° 59′ 7.022″	177	53° 10′	2° 59′
61	46.545" N	E	177	45.792" N	11.908" E
(0)	53° 10′	2° 59′ 6.176″	170	53° 10′	2° 59′
62	46.561" N	Е	178	45.993" N	11.132″ E
(2)	53° 10′	2° 59′ 5.331″	170	53° 10′	2° 59′
63	46.545" N	E	179	46.166" N	10.336" E
64	53° 10′	2° 59′ 4.489″	180	53° 10′	2° 59′ 9.524″
	46.498″ N	E		46.307" N	Е
(5	53° 10′	2° 59′ 3.654″	101	53° 10′	2° 59′ 8.699″
65	46.418″ N	E	181	46.418″ N	E

66	53° 10′ 46.307″ N	2° 59′ 2.829″ E	182	53° 10′ 46.498″ N	2° 59′ 7.864″ E
67	53° 10′ 46.166″ N	2° 59′ 2.017″ E	183	53° 10′ 46.545″ N	2° 59′ 7.022″ E
68	53° 10′ 45.993″ N	2° 59′ 1.221″ E	184	53° 10′ 46.561″ N	2° 59′ 6.176″ E
69	53° 10′ 45.792″ N	2° 59′ 0.445″ E	185	53° 10′ 46.545″ N	2° 59′ 5.331″ E
70	53° 10′ 45.561″ N	2° 58′ 59.691″ E	186	53° 10′ 46.498″ N	2° 59′ 4.489″ E
71	53° 10′ 45.302″ N	2° 58′ 58.964″ E	187	53° 10′ 46.418″ N	2° 59′ 3.654″ E
72	53° 10′ 45.017″ N	2° 58′ 58.264″ E	188	53° 10′ 46.307″ N	2° 59′ 2.829″ E
73	53° 10′ 44.705″ N	2° 58′ 57.596″ E	189	53° 10′ 46.166″ N	2° 59′ 2.017″ E
74	53° 10′ 44.369″ N	2° 58′ 56.962″ E	190	53° 10′ 45.993″ N	2° 59′ 1.221″ E
75	53° 10′ 44.010″ N	2° 58′ 56.364″ E	191	53° 10′ 45.792″ N	2° 59′ 0.445″ E
76	53° 10′ 43.629″ N	2° 58′ 55.804″ E	192	53° 10′ 45.561″ N	2° 58′ 59.691″ E
77	53° 10′ 43.228″ N	2° 58′ 55.286″ E	193	53° 10′ 45.302″ N	2° 58′ 58.964″ E
78	53° 10′ 42.807″ N	2° 58′ 54.811″ E	194	53° 10′ 45.017″ N	2° 58′ 58.264″ E
79	53° 10′ 42.370″ N	2° 58′ 54.380″ E	195	53° 10′ 44.705″ N	2° 58′ 57.596″ E
80	53° 10′ 41.918″ N	2° 58′ 53.997″ E	196	53° 10′ 44.369″ N	2° 58′ 56.962″ E
81	53° 10′ 41.451″ N	2° 58′ 53.661″ E	197	53° 10′ 44.010″ N	2° 58′ 56.364″ E
82	53° 10′ 40.973″ N	2° 58′ 53.374″ E	198	53° 10′ 43.629″ N	2° 58′ 55.804″ E
83	53° 10′ 40.485″ N	2° 58′ 53.139″ E	199	53° 10′ 43.228″ N	2° 58′ 55.286″ E
84	53° 10′ 39.990″ N	2° 58′ 52.954″ E	200	53° 10′ 42.807″ N	2° 58′ 54.811″ E
85	53° 10′ 39.488″ N	2° 58′ 52.822″ E	201	53° 10′ 42.370″ N	2° 58′ 54.380″ E
86	53° 10′ 38.982″ N	2° 58′ 52.742″ E	202	53° 10′ 41.918″ N	2° 58′ 53.997″ E
87	53° 10′ 38.474″ N	2° 58′ 52.716″ E	203	53° 10′ 41.451″ N	2° 58′ 53.661″ E
88	53° 10′ 37.966″ N	2° 58′ 52.742″ E	204	53° 10′ 40.973″ N	2° 58′ 53.374″ E
89	53° 10′ 37.461″ N	2° 58′ 52.822″ E	205	53° 10′ 40.485″ N	2° 58′ 53.139″ E
90	57.401 N 53° 10' 36.959" N	52.822 Е 2° 58' 52.954" Е	206	40.485 N 53° 10' 39.990" N	53.139 Е 2° 58′ 52.954″ Е
91	53° 10′ 36.463″ N	2° 58′ 53.139″ E	207	53° 10′ 39.488″ N	2° 58′ 52.822″ E
92	53° 10′ 35.975″ N	2° 58′ 53.375″ E	208	53° 10′ 38.982″ N	2° 58′ 52.742″ E

93	53° 10′ 35.497″ N	2° 58′ 53.661″ E	209	53° 10′ 38.474″ N	2° 58′ 52.716″ E
<u>.</u>	53° 10′	2° 58′		53° 10′	2° 58′
94	35.031" N	53.997" E	210	37.966" N	52.742″ E
	53° 10′	2° 58′		53° 10′	2° 58′
95	34.578″ N	54.381" E	211	37.461″ N	52.822″ E
	53° 10′	2° 58′		53° 10′	2° 58′
96	34.141″ N	54.812" E	212	36.959" N	52.954" E
97	53° 10′	2° 58′	213	53° 10′	2° 58′
21	33.721″ N	55.287" E	215	36.463" N	53.139" E
98	53° 10′	2° 58′	214	53° 10′	2° 58′
90	33.319" N	55.805" E	214	35.975" N	53.375" E
99	53° 10′	2° 58′	215	53° 10′	2° 58′
<u> </u>	32.938" N	56.364" E	215	35.497" N	53.661" E
100	53° 10′	2° 58′	216	53° 10′	2° 58′
100	32.579" N	56.962" E	216	35.031" N	53.997" E
101	53° 10′	2° 58′	017	53° 10′	2° 58′
101	32.243″ N	57.597" E	217	34.578" N	54.381" E
100	53° 10′	2° 58′	210	53° 10′	2° 58′
102	31.932" N	58.265″ E	218	34.141" N	54.812″ E
102	53° 10′	2° 58′	219	53° 10′	2° 58′
103	31.646" N	58.964" E		33.721″ N	55.287″ E
104	53° 10′	2° 58′	220	53° 10′	2° 58′
104	31.388″ N	59.692″ E		33.319″ N	55.805″ E
105	53° 10′	2° 59′ 0.445″		53° 10′	2° 58′
105	31.157″ N	E	221	32.938" N	56.364" E
106	53° 10′	2° 59′ 1.221″		53° 10′	2° 58′
106	30.955″ N	Е	222	32.579″ N	56.962" E
107	53° 10′	2° 59′ 2.017″	222	53° 10′	2° 58′
107	30.783″ N	Е	223	32.243″ N	57.597" E
4.9.9	53° 10′	2° 59′ 2.829″	224	53° 10′	2° 58′
108	30.641" N	Е	224	31.932" N	58.265″ E
100	53° 10′	2° 59′ 3.654″	225	53° 10′	2° 58′
109	30.531" N	Е	225	31.646" N	58.964" E
110	53° 10′	2° 59′ 4.489″	22 <i>i</i>	53° 10′	2° 58′
110	30.451″ N	Е	226	31.388″ N	59.692″ E
	53° 14′	3° 3′ 31.257″		53° 10′	2° 59′ 0.445″
111	28.789″ N	E	227	31.157″ N	E
	52° 56′	3° 8′ 41.012″	•••	53° 10′	2° 59′ 1.221″
112	14.962" N	E	228	30.955″ N	E
	52° 54′	2° 58′		53° 10′	2° 59′ 2.017″
113	27.033" N	15.457″ E	229	30.783″ N	E 2.017
	52° 54′	2° 58′		53° 10′	
114	11.424" N	22.820" E	230	30.641" N	E 57 2.825
	52° 53′	2° 58′		53° 10′	2° 59′ 3.654″
115	56.239" N	29.982" E	231	30.531" N	E 57 5.054
116	52° 49′	2° 56′	232	53° 10′	2° 59′ 4.489″
	50.103" N	54.167″ E		30.451" N	Е
	,				-

PART 3

Details of Licensed Marine Activities

1. Subject to the licence conditions at Part 4, this licence authorises the undertaker (and any agent

or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea of the substances and articles specified in paragraph 5 of Part 2 of this licence;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation;
- (d) the disposal of up to a total of 37,698,890 m³ of inert material of natural origin within the offshore Order limits produced during construction drilling or seabed preparation for foundation works and cable (including fibre optic cable) sandwave preparation works at disposal site reference HU217 within the extent of the Order limits seaward of MHWS, comprising—
 - (i) 36,000,000 m³ for cable and fibre optic cable installation;
 - (ii) $1,648,824 \text{ m}^3$ for the wind turbine generators;
 - (iii) 37,500 m³ for the offshore service platform; and
 - (iv) 12,566 m³ for the meteorological masts; and
- (e) the removal of static fishing equipment; and
- (f) The disposal of drill arisings in connection with any foundation drilling up to a total of 399,776 m³.

2.—(1) Such activities are authorised in relation to the construction, maintenance and operation of (in the event of scenario 1 and scenario 2 unless otherwise stated below)—

Work No. 1 (phase 2) in the event of scenario 1 and scenario 2-

- (a) an offshore wind turbine generating station with an electrical export capacity of up to 1,800 MW at the point of connection to the offshore electrical platform(s) referred to at Work No. 2 gross electrical output of over 100 MW comprising up to 13758 wind turbine generators each fixed to the seabed by one of the following foundation types: monopile (piled or suction caisson), jacket (piled or suction caisson), gravity base or tetrabase fitted with rotating blades and situated within the area shown on the works plan and further comprising (b) to (e) below;
- (b) up to one offshore service platform fixed to the seabed within the area shown on the works plan by one of the following foundation types: jacket (piled or suction caisson) or gravity base;
- (c) up to two meteorological masts fixed to the seabed within the area shown on the works plan by one of the following foundation types: monopile (piled or suction caisson), jacket (piled or suction caisson) or gravity base;
- (d) up to two LIDAR measurement buoys fixed to the seabed within the area shown on the works plan by one of the following foundation types: monopile (piled) or floating and up to two wave measurement buoys fixed to the seabed within the area shown on the works plan by one foundation type (floating); and
- (e) a network of subsea array cables and fibre optic cables within the area shown on the works plan between the wind turbine generators, and between the wind turbine generators and Work No.2 including one or more offshore cable crossings.

In the event of scenario 1:

(f) a network of subsea cables and fibre optic cables connecting wind turbine generators within

 (a) above to an offshore electrical platform within Norfolk Vanguard East including one or
 more offshore cable crossings.

(2) In connection with such Work No. 1 and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence including:

(a) scour protection around the foundations of the offshore structures;

- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work No. 1 and the disposal of up to a total of 37,698,890 m³ of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works, cable installation preparation such as sandwave clearance, boulder clearance and pre-trenching and excavation of horizontal directional drilling exit pits; and
- (d) removal of static fishing equipment;

(3) In connection with such Work No. 1, ancillary works within the Order limits which have been subject to an environmental impact assessment recorded in the environmental statement comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction and/ or maintenance of the authorised scheme; and
- (b) beacons, fenders and other navigational warning or ship impact protection works.

PART 4

Conditions

Design parameters

1.—(1) Subject to paragraph (2), each wind turbine generator forming part of the authorised scheme must not—

- (a) exceed a height of 350 metres when measured from HAT to the tip of the vertical blade;
- (b) exceed a height of 198.5 metres to the height of the centreline of the generator shaft forming part of the hub when measured from HAT;
- (c) exceed a rotor diameter of 303 metres;
- (d) be less than 800 metres from the nearest wind turbine generator in either direction perpendicular to the approximate prevailing wind direction (crosswind) or be less than 800 metres from the nearest wind turbine generator in either direction which is in line with the approximate prevailing wind direction (downwind); or
- (e) have a draught height which is less than the minimum draught height specified for the relevant wind turbine generator capacity in the table below—

Wind Turbine Generator Capacity	Minimum draught height
Up to and including 14.6MW	35m from MHWS
14.7 MW and above	30m from MHWS

(2) References to the location of a wind turbine generator in paragraph (1) above are references to the centre point of that turbine.

2.—(1) The dimensions of any offshore service platform forming part of the authorised scheme must not exceed 100 metres in height when measured from HAT, 90 metres in length and 60 metres in width.

- (2) Each meteorological mast must not exceed a height of 200 metres above HAT.
- (3) Each meteorological mast must not have more than one supporting foundation.

3. The total length of the cables and the area and volume of their cable protection must not exceed the individual distributions set out in Table 2 of the outline scour protection and cable protection plan and must not exceed the following—

Work	Length	Cable protection (m^3)	Cable protection (m^2)
Work No. 1(e) and (f) (array)	600 kilometres	198,500 m ³	389,000 m ²

4.—(1) In relation to a wind turbine generator, each foundation using piles must not have—

- (a) more than four driven piles;
- (b) in the case of single pile structures, a pile diameter which is more than 15 metres; or
- (c) in the case of two or more pile structures, have a pile diameter which is more than five metres.

(2) In relation to a wind turbine generator, each foundation must not have a seabed footprint area (excluding scour protection) of greater than $1,963m^2$.

5.—(1) In relation to a meteorological mast, each foundation using piles must not have—

- (a) more than four driven piles;
- (b) in the case of single pile structures, a pile diameter which is more than 10 metres; or
- (c) in the case of two or more pile structures, have a pile diameter which is more than three metres.

(2) In relation to a meteorological mast, each foundation must not have a seabed footprint area (excluding scour protection) of greater than 314 m^2 .

6.—(1) In relation to an offshore service platform, each foundation using piles must nothave—

- (a) more than six driven piles; or
- (b) a pile diameter which is more than three metres.

(2) In relation to an offshore service platform, each foundation must not have a seabed footprint area (excluding scour protection) of greater than $7,500 \text{ m}^2$.

7.—(1) In relation to any LIDAR measurement buoys, each foundation using piles must not have a pile diameter of greater than 10 metres.

(2) In relation to any LIDAR measurement buoys, each foundation must not have a seabed footprint area (excluding scour protection) of greater than 78.5 m^2 per buoy and 157 m^2 in total.

(3) In relation to any wave measurement buoys, each foundation must not have a seabed footprint area (excluding scour protection) of greater than 150 m^2 per buoy and 300 m^2 in total.

Phasing of the authorised scheme

8.—(1) Taken together with works authorised and proposed to be constructed pursuant to licence 1 (generation)—

- (a) the total electrical export capacity of the authorised scheme must not exceed 1,800MW at the point of connection to the offshore electrical platform(s);
- (b)(a) the total number of wind turbine generators forming part of the authorised scheme must not exceed 1<u>37</u>58;
- (c)(b) the total number of offshore service platform forming part of the authorised scheme must not exceed one;
- (d)(c) the total number of meteorological masts forming part of the authorised scheme must not exceed two;
- (e)(d) the total number of LIDAR measurement buoys forming part of the authorised scheme must not exceed two;
- (f)(e) the total number of wave measurement buoys forming part of the authorised scheme must not exceed two;
- (g)(f) the total amount of scour protection for the wind turbine generators, offshore service platform, meteorological masts and measurement buoys forming part of the authorised scheme must not exceed 25,834,269 m³ and 5,166,854 m² and must not exceed the distributed quantities of scour protection set out in Table 1 of the outline scour protection and cable protection plan;
- (h)(g) the total amount of inert material of natural origin disposed within the offshore Order limits as part of the authorised scheme must not exceed 37,698,890 m³;

- (i)(h) the total amount of disposal for drill arisings in connection with any foundation drilling must not exceed 399,776 m³; and
- (j)(i) the total length of cable and the amount of cable protection must not exceed the figures stated in condition 3 of this licence.

(2) Prior to the commencement of the authorised scheme, where the authorised scheme will be constructed in two offshore phases (under licence 1 (generation) and this licence), the undertaker must give notice to the MMO detailing the total number of wind turbine generators, offshore service platform, meteorological masts, LIDAR measurement buoys and wave measurement buoys to be constructed in this phase under this licence.

Notifications and inspections

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

- (a) a copy of this licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 17; and
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 17; and
- (b) within 28 days of receipt of a copy of this licence those persons referred to in paragraph(a) above must provide a completed confirmation form to the MMO confirming receipt of this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 17 are permitted to carry out the licensed activities.

(3) Copies of this licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
- (c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.

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

(5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Coastal Office in writing at least five days prior to the commencement of the licensed activities or any part of them, and within five days of completion of the licensed activities.

(7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details regarding the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—

- (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
- (b) as soon as reasonably practicable and no later than 24 hours of completion of construction of all offshore activities;

and confirmation of notification must be provided to the MMO within five days.

(8) A notice to mariners must be issued at least ten days prior to the commencement of the licensed activities or any part of them advising of the start date of Work No. 1 (wind turbine generators or other offshore construction activities including array cables and fibre optic cables) and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(9) The notices to mariners must be updated and reissued at weekly intervals during construction

activities and at least five days before any planned operations and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under condition 14(1)(b). Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(10) The undertaker must notify the UK Hydrographic Office both of the commencement (ten days prior), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days.

(11) In case of damage to, or destruction or decay of the authorised scheme seaward of MHWS or any part thereof, the undertaker must as soon as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify MMO, MCA, Trinity House, the Kingfisher Information Service of Seafish and the UK Hydrographic Office.

(12) In case of exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners by issuing a notice to mariners and by informing Kingfisher Information Service of the location and extent of exposure. Copies of all notices must be provided to the MMO and MCA within five days.

Aids to navigation

10.—(1) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS exhibit such lights, marks, sounds, signals and other aids to navigation, and to take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

(2) The undertaker must during the period from the start of construction of the authorised scheme to completion of decommissioning seaward of MHWS keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MHWS including the following—

- (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 five days of completion of construction of the authorised scheme.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation as set out in the aids to navigation management plan agreed pursuant to condition 14(1)(k) using the reporting system provided by Trinity House.

(4) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS notify Trinity House and the MMO of any failure of the aids to navigation and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 9(11) and condition 9(12) are invoked, the undertaker must lay down such marker buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Colouring of structures

11.—(1) Except as otherwise required by Trinity House the undertaker must colour all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height directed by Trinity House, or must colour the structure as directed by Trinity House from time to time.

(2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Chemicals, drilling and debris

12.—(1) Unless otherwise agreed in writing by the MMO all chemicals used in the construction of the authorised scheme, including any chemical agents placed within any monopile void, must be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry

under the Offshore Chemicals Regulations 2002⁶ (as amended).

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

(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 inform the MMO of the location and quantities of material disposed of each month under this licence. This information must be submitted to the MMO by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive. In the event that no activity has taken place during the reporting period the undertaker must provide a null (0) return to the MMO.

(5) The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within disposal site reference HU217 within the extent of the Order limits seaward of MHWS. Any other materials must be screened out before disposal of the inert material at this site.

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

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

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

(9) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 14(1)(d)(i).

(10) All dropped objects must be reported to the MMO using the Dropped Object Procedure Form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of the Dropped Object Procedure Form, the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so.

Force majeure

13.—(1) If, due to stress of weather or any other cause the master of a vessel determines that it is necessary to make a deposit which is not authorised under this licence whether within or outside of the Order limits because the safety of human life and/or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

(2) The unauthorised deposits must be removed at the expense of the undertaker unless written approval is obtained from the MMO.

Pre-construction plans and documentation

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

- (a) A design plan at a scale of between 1:25,000 and 1:50,000 including detailed representation on the most suitably scaled admiralty chart, to be agreed in writing with the MMO in consultation with Trinity House and the MCA which shows, in accordance with the Development Principles—
 - (i) the proposed location and choice of foundation of all wind turbine generators, offshore

⁶ S.I. 2002/1355.

electrical platforms, offshore service platform and meteorological masts;

- (ii) the height to the tip of the vertical blade of all wind turbine generators;
- (iii) the height to the centreline of the generator shaft forming part of the hub of all wind turbine generators;
- (iv) the rotor diameter and spacing of all wind turbine generators;
- (v) the height of all lattice towers forming part of all meteorological masts;
- (vi) the height, length and width of all offshore service platform;
- (vii) the dimensions of all foundations;
- (viii) the length and arrangement of all cables (including fibre optic cables) comprising Work No. 1(e);
- (ix) the proposed layout of all wind turbine generators (in accordance with the recommendations for layout contained in MGN543 and its annexes), offshore service platform and meteorological masts including any exclusion zones identified under sub-paragraph (1)(h)(iv);
- (x) a plan showing the indicative layout of all wind turbine generators, offshore service platform and meteorological masts including all exclusion zones (insofar as not shown in (ix) above) and showing the indicative programming of particular works as set out in the indicative programme to be provided under sub-paragraph (1)(b)(iv);
- (xi) any exclusion zones/micrositing requirements identified in any mitigation scheme pursuant to sub-paragraph (1)(i); and
- (xii) the grid coordinates of the centre point of the proposed location for each wind turbine generator, offshore electrical platform, substation and meteorological mast.

to ensure conformity with the description of Work No. 1 and compliance with conditions 1 to 8 above.

- (b) A construction programme and monitoring plan (which accords with the offshore in principle monitoring plan) to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant delivery of materials and installation works;
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with sub-paragraph (1)(h) and conditions 17, 18, 19 and 20; and
 - (iv) an indicative written construction programme for all wind turbine generators offshore service platform, meteorological masts, measurement buoys and cables (including fibre optic cables) comprised in the works in Part 3 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above);

with details pursuant to paragraph (iii) above to be submitted to the MMO in accordance with the following—

- (aa) at least four months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
- (bb) at least four months prior to construction, detail on construction monitoring; and
- (cc) at least four months prior to commissioning, detail of post-construction (and operational) monitoring;

unless otherwise agreed in writing with the MMO.

- (c) A construction method statement in accordance with the construction methods assessed in the environmental statement and including details of—
 - (i) foundation installation methodology, including drilling methods and disposal of drill arisings and material extracted during seabed preparation for foundation works, and having regard to any mitigation scheme pursuant to sub-paragraph (1)(i);
 - (ii) soft start procedures with specified duration periods;
 - (iii) cable (including fibre optic cable) installation;

- (iv) contractors;
- (v) vessels, vessels maintenance and vessel transit corridors; and
- (vi) associated and ancillary works.
- (d) A project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation 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 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;
 - (iv) the appointment and responsibilities of a fisheries liaison officer;
 - (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of commencement of licensed activities pursuant to condition 9 and to address the interaction of the licensed activities with fishing activities; and
 - (vi) procedures to be followed within vessels transit corridors to minimise disturbance to red-throated diver during operation and maintenance activities.
- (e) A scour protection and cable protection plan (in accordance with the outline scour protection and cable protection plan) providing details of the need, type, sources, quantity, distribution and installation methods for scour protection and cable (including fibre optic cable) protection. For the avoidance of doubt "distribution" in this sub– paragraph must include quantities in respect of each structure comprised in the offshore works and intended to be subject to scour protection.
- (f) In the event that piled foundations are proposed to be used, at least six months prior to commencement of licensed activities, a marine mammal mitigation protocol, in accordance with the draft marine mammal mitigation protocol, the intention of which is to prevent injury to marine mammals and following current best practice as advised by the relevant statutory nature conservation bodies.
- (g) A cable specification, installation and monitoring plan, to include—
 - (i) technical specification of offshore cables (including fibre optic cables) below MHWS, 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 detailed cable (including fibre optic cables) laying plan for the Order limits, incorporating a burial risk assessment, encompassing the identification of any cable protection that exceeds 5% of navigable depth referenced to chart datum and, in the event that any area of cable protection exceeding 5% of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House) to be taken to ensure existing and future safe navigation is not compromised or such similar assessment to ascertain suitable burial depths and cable laying techniques, including cable protection; and
 - (iii) proposals for monitoring offshore cables (including fibre optic cables) including cable protection during the operational lifetime of the authorised scheme which includes a risk based approach to the management of unburied or shallow buried cables.
- (h) An archaeological written scheme of investigation in relation to the offshore Order limits seaward of mean high water, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body to include—
 - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;

- (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
- (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
- (v) monitoring of archaeological exclusion zones during and post construction;
- (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS (Online Access to the Index of archaeological investigations) form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO that the OASIS form has been submitted to the National Record of the Historic Environment within two weeks of submission;
- (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and
- (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order Limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities.
- (i) A mitigation scheme for any habitats of principal importance identified by the survey referred to in condition 18(2)(a) and in accordance with the offshore in principle monitoring plan.
- (j) An offshore operations and maintenance plan, in accordance with the outline offshore operations and maintenance plan, to be submitted to the MMO at least four months prior to commencement of operation of the licensed activities and to provide for review and resubmission every three years during the operational phase.
- (k) An aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, to include details of how the undertaker will comply with the provisions of condition 10 for the lifetime of the authorised scheme.
- (l) In relation to ornithological monitoring—
 - (i) a plan setting out the aims, objectives and timing for ornithological monitoring which must be submitted to the MMO (in consultation with the relevant statutory nature conservation body) at least four months prior to the first pre-construction survey (as referred to in condition 14(1)(b)(aa)), and
 - (ii) an ornithological monitoring plan setting out the methods for ornithological monitoring which must be submitted to the MMO (in consultation with the relevant statutory nature conservation body) in accordance with the details and timescales approved pursuant to the plan referred to in sub-paragraph (i).
- (m) In the event that piled foundations are proposed to be used, at least six months prior to commencement of licensed activities, a site integrity plan which accords with the principles set out in the in principle Norfolk Boreas Southern North Sea Special Area of Conservation Site Integrity Plan, and which the MMO is satisfied would provide such mitigation as is necessary to avoid adversely affecting the integrity (within the meaning of the 2017 Regulations) of a relevant site, to the extent that harbour porpoise are a protected feature of that site.

(2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific written scheme of investigation which is itself in accordance with the details set out in the outline offshore written scheme of investigation (offshore), and which has been submitted to and approved by the MMO.

(3) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive the pile foundations must not exceed—

- (a) 5,000kJ in respect of monopile foundations; and
- (b) 2,700kJ in respect of pin piles.

15.—(1) Any archaeological reports produced in accordance with condition 14(1)(h)(iii) must be

agreed with the MMO in consultation with the statutory historic body.

(2) The design plan required by condition 14(1)(a) must be prepared by the undertaker and determined by the MMO in accordance with the Development Principles.

(3) Each programme, statement, plan, protocol or scheme required to be approved under condition 14 must be submitted for approval at least four months prior to the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(4) No licensed activity may commence until for that licensed activity the MMO has approved in writing any relevant programme, statement, plan, protocol or scheme required to be approved under condition 14.

(5) Unless otherwise agreed in writing with the undertaker, the MMO must use reasonable endeavours to determine an application for approval made under condition 14 as soon as practicable and in any event, within a period of four months commencing on the date the application is received by the MMO.

(6) The licensed activities must be carried out in accordance with the plans, protocols, statements, schemes and details approved under condition 14, unless otherwise agreed in writing by the MMO.

(7) No part of the authorised scheme may commence until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed MCA recommendations as appropriate to the authorised scheme contained within MGN543 "Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues" and its annexes.

Post-construction plans and documents

16. The undertaker must conduct a swath bathymetric survey to IHO S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out and provide the data and survey report(s) to the MMO, MCA and UKHO.

Reporting of engaged agents, contractors and vessels

17.—(1) The undertaker must provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO in writing prior to the agent, contractor or vessel engaging in the licensed activities.

Pre-construction monitoring and surveys

18.—(1) The undertaker must, in discharging condition 14(1)(b), submit details (which accord with the offshore in principle monitoring plan) for written approval by the MMO in consultation with the relevant statutory bodies of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report; and—

- (a) the survey proposals 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 and/or will enable the validation or otherwise of key predictions in the environmental statement; and
- (b) 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 preconstruction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

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

(a) undertake appropriate surveys to determine the location and extent of any benthic communities/benthos constituting Annex 1 reef habitats of principal importance in whole

or in part inside the area(s) within the Order limits in which it is proposed to carry out construction works;

- (b) undertake a full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works; and
- (c) undertake any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with condition 14(1)(l); and
- (d) undertake or contribute to any marine mammal monitoring referred to in the in principle monitoring plan submitted in accordance with condition 14(1)(b).

(3) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation bodies.

Construction monitoring

19.—(1) The undertaker must, in discharging condition 14(1)(b), submit details (which accord with the offshore in principle monitoring plan) for approval by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives. In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.

(2) The undertaker must carry out the surveys approved under sub-paragraph (1), including any further noise monitoring required in writing by the MMO, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(3) The results of the initial noise measurements monitored in accordance with sub-paragraph (1) must be provided to the MMO within six weeks of the installation of the first four piled foundations of each piled foundation type. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the opinion of the MMO in consultation with the relevant statutory nature conservation body, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have been agreed.

(4) Construction monitoring must include traffic monitoring in accordance with the outline marine traffic monitoring strategy, including the provision of reports on the results of that monitoring periodically as requested by the MMO in consultation with the MCA and Trinity House.

(5) In the event that piled foundations are proposed to be used, the details submitted, in accordance with the offshore in principle monitoring plan must include proposals for monitoring marine mammals.

Post construction

20.—(1) The undertaker must, in discharging condition 14(1)(b), submit details (which accord with the offshore in principle monitoring plan) for approval by the MMO in consultation with relevant statutory bodies of proposed post-construction surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals 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 and/or will enable the validation or otherwise of key predictions in the environmental statement.

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

(a) undertake an appropriate survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic

importance constituting Annex 1 reef habitats identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey;

- (b) undertake, within twelve months of completion of the licensed activities, one full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables (including fibre optic cables) have been buried or protected;
- (c) undertake any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with condition 14(1)(l);
- (d) undertake post-construction traffic monitoring in accordance with the outline marine traffic monitoring strategy, including the provision of reports on the results of that monitoring periodically as requested by the MMO in consultation with the MCA and Trinity House; and
- (e) undertake or contribute to any marine mammal monitoring referred to in the in principle monitoring plan submitted in accordance with condition 14(1)(b).

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

(4) Following installation of cables (including fibre optic cables), the cable monitoring plan required under condition 14(1)(g)(iii) must be updated with the results of the post installation surveys. The plan must be implemented during the operational lifetime of the authorised scheme and reviewed as specified within the plan, following cable burial surveys, or as instructed by the MMO.

Reporting of impact pile driving

21.—(1) Only when driven or part-driven pile foundations are proposed to be used as part of the foundation installation the undertaker must provide the following information to the UK Marine Noise Registry—

- (a) prior to the commencement of the licenced activities, information on the expected location, start and end dates of impact pile driving to satisfy the Marine Noise Registry's Forward Look requirements;
- (b) at six month intervals following the commencement of pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements; and
- (c) within 12 weeks of completion of impact pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements.

(2) The undertaker must notify the MMO of the successful submission of Forward Look or Close Out data pursuant to paragraph (1) above within 7 days of the submission.

(3) For the purpose of this condition—

"Marine Noise Registry" means the database developed and maintained by JNCC on behalf of Defra to record the spatial and temporal distribution of impulsive noise generating activities in UK seas; and

"Forward Look" and "Close Out" requirements are as set out in the UK Marine Noise Registry Information Document Version 1 (July 2015) or any updated information document.

Reporting of scour and cable protection

22.—(1) Not more than 4 months following completion of the construction phase of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection and scour protection used for the authorised scheme.

(2) The report must include the following information—

- (a) location of the cable protection and scour protection;
- (b) volume of cable protection and scour protection; and
- (c) any other information relating to the cable protection as agreed between the MMO and the undertaker.

Completion of construction

23.—(1) The undertaker must submit a close out report to the MMO and the relevant statutory nature conservation body within three months of the date of completion of construction. The close out report must confirm the date of completion of construction and must include the following details—

- (a) the final number of installed turbine generators;
- (b) the installed wind turbine generator parameters relevant for ornithological collision risk modelling.

(2) Following completion of construction, no further construction activities can be undertaken under this licence.

SCHEDULE 11

Article 32

Deemed Licence under the 2009 Act – Transmission Assets (Licence 1 – Phase 1)

PART 1

Interpretation

1.—(1) In this licence—

"the 2004 Act" means the Energy Act 2004;

"the 2008 Act" means the Planning Act 2008;

"the 2009 Act" means the Marine and Coastal Access Act 2009;

"the 2011 Regulations" means the Marine Licensing (Licence Application Appeals) Regulations 2011⁷;

"the 2017 Regulations" means the Offshore Marine Habitats and Species Regulations 20178;

"authorised deposits" means the substances and articles specified in paragraph 5 of Part 2 of this licence;

"authorised scheme" means Work Nos. 2, 3A, 4A, and 4B described in Part 3 of this licence or any part of that work;

"cable protection" means measures for offshore cable crossings and where cable burial is not possible due to ground conditions or approaching offshore structures, to protect cables and fibre optic cables and prevent loss of seabed sediment by use of grout bags, protective aprons, mattresses, flow energy dissipation (frond) devices or rock and gravel dumping;

"commence" means the first carrying out of any part of the licensed activities save for preconstruction surveys and monitoring and "commenced" and "commencement" must be construed accordingly;

"condition" means a condition in Part 4 of this licence;

"Defence Infrastructure Organisation Safeguarding" means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands B75 7RL and any successor body to its functions;

"Development Principles" means the document certified as the Development Principles by the

⁷ S.I. 2011/934.

⁸ S.I. 2017/1013.

Secretary of State for the purposes of the Order;

"draft marine mammal mitigation protocol" means the document certified as the draft marine mammal mitigation protocol by the Secretary of State for the purposes of this Order;

"enforcement officer" means a person authorised to carry out enforcement duties under Chapter 3 of Part 4 (marine licensing) of the 2009 Act;

"environmental statement" means the document certified as the environmental statement by the Secretary of State for the purposes of this Order;

"generation licence" means the licence set out in Schedule 9 (deemed licence under the 2009 Act – generation assets (licence 1 – phase 1) and/or the licence set out in Schedule 10 (deemed licence under the 2009 Act – generation assets (licence 2 – phase 2);

"gravity base" means a structure principally of steel, concrete, or steel and concrete which rests on the seabed either due to its own weight with or without added ballast or additional skirts and associated materials and equipment including scour protection, J-tubes, transition piece, corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"HAT" means highest astronomical tide;

"in principle Norfolk Boreas Southern North Sea Special Area of Conservation Site Integrity Plan" means the document certified as the in principle Norfolk Boreas Southern North Sea Special Area of Conservation Site Integrity Plan by the Secretary of State for the purposes of this Order;

"jacket foundation" means a steel jacket/ lattice-type structure constructed of steel which is fixed to the seabed at three or more points with steel pin piles or steel suction caissons and associated materials and equipment including scour protection, J-tubes, transition piece, corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"Kingfisher Fortnightly Bulletin" means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO for the purposes of this licence;

"licence 2 (transmission)" means the licence set out in Schedule 12 (deemed licence under the 2009 Act – transmission assets (licence 2 – phase 2));

"licensed activities" means the activities specified in Part 3 of this licence;

"maintain" includes inspect, upkeep, repair, adjust, and alter and further includes remove, reconstruct and replace (but only in relation to any of the ancillary works in Part 2 of Schedule 1 (ancillary works), any cable and any component part of any wind turbine generator, offshore electrical platform, offshore service platform or meteorological mast described in Part 1 of Schedule 1 (authorised development) not including the alteration, removal or replacement of foundations), to the extent assessed in the environmental statement; and "maintenance" is construed accordingly;

"Marine Management Organisation" or "MMO" means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence;

"MCA" means the Maritime and Coastguard Agency;

"mean high water springs" or "MHWS" means the highest level which spring tides reach on average over a period of time;

"meteorological mast" means a mast housing equipment to measure wind speed and other wind characteristics, including a topside housing electrical, communication and associated equipment and marking and lighting;

"Norfolk Boreas Offshore Wind Farm" means the offshore wind farm authorised pursuant to the Order;

"Norfolk Vanguard Offshore Wind Farm" means the offshore wind farm for which Norfolk Vanguard Limited has sought a development consent order pursuant to an application submitted to the Secretary of State on 26th June 2018;

"notice to mariners" means a notice issued by the undertaker to mariners to inform them of issues that affect the safety of navigation;

"offshore cables" means any cables offshore;

"offshore electrical platform" means a platform attached to the seabed by means of a foundation, with one or more decks, whether open or fully clad, accommodating electrical power transformers, switchgear, instrumentation, protection and control systems and other associated equipment and facilities to enable the transmission of electronic communications and for electricity to be collected at, and exported from, the platform;

"offshore in principle monitoring plan" means the document certified as the offshore in principle monitoring plan by the Secretary of State for the purposes of this Order;

"offshore Order limits" means the limits shown on the works plan within which the authorised scheme may be carried out, whose grid coordinates are set out in Part 2 of this licence;

"the Order" means the Norfolk Boreas Offshore Wind Farm Order 2021;

"outline fisheries liaison and co-existence plan" means the document certified as the outline fisheries liaison and co-existence plan by the Secretary of State for the purposes of this Order;

"outline offshore operations and maintenance plan" means the document certified as the outline offshore operations and maintenance plan by the Secretary of State for the purposes of the Order;

"outline Norfolk Boreas Haisborough, Hammond and Winterton Special Area of Conservation Cable Specification, Installation and Monitoring Plan" means the document certified as the outline Norfolk Boreas Haisborough, Hammond and Winterton Special Area of Conservation Cable Specification, Installation and Monitoring Plan by the Secretary of State for the purposes of this Order;

"outline written scheme of investigation (offshore)" means the document certified as the outline written scheme of investigation (offshore) by the Secretary of State for the purposes of this Order;

"pin piles" means steel cylindrical piles driven and/or drilled into the seabed to secure steel jacket foundations;

"relevant site" means a European offshore marine site or a European site as defined in the 2017 Regulations;

"scenario 1" means the scenario in which the Norfolk Vanguard Offshore Wind Farm proceeds to construction and carries out enabling works, including the laying of onshore cable ducts, to benefit the Norfolk Boreas Offshore Wind Farm;

"scenario 2" means the scenario in which the Norfolk Vanguard Offshore Wind Farm does not proceed to construction and Norfolk Boreas Offshore Wind Farm is built out as an independent project including the laying of onshore cable ducts;

"scour protection" means measures to prevent loss of seabed sediment around any marine structure placed in or on the seabed by use of protective aprons, mattresses with or without frond devices, or rock and gravel placement.

"single offshore phase" means carrying out all offshore works as a single construction operation;

"statutory historic body" means Historic Buildings and Monuments Commission for England (Historic England) or its successor in function;

"statutory nature conservation body" means an organisation charged by government with advising on nature conservation matters;

"suction caisson" means a large diameter steel cylindrical shell which penetrates the seabed assisted by a hydrostatic pressure differential for fixity of foundations;

"Trinity House" means the Corporation of Trinity House of Deptford Strond;

"two offshore phases" means carrying out the offshore works as two separate construction operations;

"UK Hydrographic Office" means the UK Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

"undertaker" means Norfolk Boreas Limited (Company No. 03722058) whose registered office is at 5th Floor, 70 St Mary Axe, London EC3A 8BE;

"vessel" means every description of vessel, however propelled or moved, and includes a nondisplacement 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;

"Work No. 3B" means up to three project interconnector cables to connect Work No. 2 with the Norfolk Vanguard Offshore Wind Farm licensed under Schedule 13 of this Order;

"Work No. 4C" means the onshore transmission works at the landfall consisting of up to two transition jointing pits and up to four cables to be laid in ducts underground and associated fibre optic cables laid within cable ducts from MHWS at Happisburgh South, North Norfolk; and

"works plan" means the plan certified as the works plan by the Secretary of State for the purposes of the Order.

(2) A reference to any statute, order, regulation or similar instrument is construed as 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) Unless otherwise indicated—

- (a) all times are taken to be Greenwich Mean Time (GMT); and
- (b) all co-ordinates are taken to be latitude and longitude degrees and minutes to two decimal places.

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

(a) Marine Management Organisation

Marine Licensing Lancaster House Hampshire Court Newcastle Business Park Newcastle upon Tyne NE4 7YH Tel: _____;

(b) Marine Management Organisation (local office)

Lowestoft Office Pakefield Road Lowestoft Suffolk NR33 0HT Tel:

(d) The United Kingdom Hydrographic Office

Admiralty Way Taunton Somerset TA1 2DN Tel:

- (e) Maritime and Coastguard Agency Navigation Safety Branch
 Bay 2/20, Spring Place
 105 Commercial Road
 Southampton
 SO15 1EG
 Tel _____;
- (f) Centre for Environment, Fisheries and Aquaculture Science Pakefield Road Lowestoft Suffolk NR33 0HT Tel: _____;
- (g) Natural England
 Area 1C, Nobel House
 17 Smith Square
 London
 SW1P 2AL
 Tel: _____;
- (h) Historic England
 Cannon Bridge House
 25 Dowgate Hill
 London
 EC4R 2YA
 Tel:

PART 2

Licensed Marine Activities - General

1. This licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108 (reviews and revisions of decommissioning programmes), and the completion of such programme has been confirmed by the Secretary of State in writing.

2. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence only apply to a transfer not falling within article 6 (benefit of the Order).

3. With respect to any condition which requires the licensed activities be carried out in accordance with the plans, protocols or statements approved under this Schedule, the approved details, plan or scheme are taken to include any amendments that may subsequently be approved in writing by the MMO.

4. Any amendments to or variations from the approved plans, protocols or statements must be minor or immaterial and it must be demonstrated to the satisfaction of the MMO that they are unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

5. The substances or articles authorised for deposit at sea are—

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

6. The grid coordinates for the authorised scheme are specified below—

Point	Latitude (DMS)	Longitude (DMS)	Point	Latitude (DMS)	Longitude (DMS)
1	53° 14′ 28.789″ N	3° 3′ 31.257″ E	241	52° 44′ 51.006″ N	2° 2′ 16.812″ E
2	52° 56′ 14.962″ N	3° 8′ 41.012″ E	242	52° 44′ 50.593″ N	2° 2′ 18.703″ E
3	52° 52′ 23.652″ N	2° 46′ 27.791″ E	243	52° 44′ 50.478″ N	2° 2′ 19.257″ E
4	52° 47′ 34.455″ N	2° 46′ 27.112″ E	244	52° 44′ 50.373″ N	2° 2′ 19.818″ E
5	52° 47′ 27.871″ N	2° 45′ 34.063″ E	245	52° 44′ 50.034″ N	2° 2′ 21.747″ E
6	52° 47′ 16.559″ N	2° 44′ 3.046″ E	246	52° 44′ 49.940″ N	2° 2′ 22.313″ E
7	52° 47′ 15.589″ N	2° 43′ 55.247″ E	247	52° 44′ 49.857″ N	2° 2′ 22.883″ E
8	52° 47′ 15.589″ N	2° 43′ 55.243″ E	248	52° 44′ 49.592″ N	2° 2′ 24.844″ E
9	52° 47′ 14.341″ N	2° 43′ 45.216″ E	249	52° 44′ 49.520″ N	2° 2′ 25.418″ E
10	52° 47′ 13.615″ N	2° 43′ 39.381″ E	250	52° 44′ 49.459″ N	2° 2′ 25.996″ E
11	52° 43′	2° 16′	251	52° 44′	2° 2′ 27.980″
	46.039" N	19.075″ E		49.268" N	Е
12	52° 43′ 45.182″ N	2° 16′ 10.004″ E	252	52° 44′ 49.218″ N	2° 2′ 28.561″ E
13	52° 43′ 44.634″ N	2° 16′ 0.162″ E	253	52° 44′ 49.179″ N	2° 2′ 29.143″ E
14	52° 43′ 44.531″ N	2° 15′ 54.221″ E	254	52° 44′ 49.065″ N	2° 2′ 31.144″ E
15	52° 43′ 44.490″ N	2° 15′ 51.462″ E	255	52° 44′ 49.037″ N	2° 2′ 31.728″ E
16	52° 43′ 44.512″ N	2° 7′ 23.550″ E	256	52° 44′ 49.021″ N	2° 2′ 32.314″ E
17	52° 42′ 44.166″ N	2° 3′ 14.512″ E	257	52° 44′ 48.989″ N	2° 2′ 34.021″ E
18	52° 42′ 43.152″ N	2° 3′ 9.802″ E	258	52° 44′ 48.983″ N	2° 2′ 34.638″ E
19	52° 42′ 42.369″ N	2° 3′ 4.946″ E	259	52° 44′ 49.220″ N	2° 15′ 49.970″ E

20	52° 42′ 31.534″ N	2° 1′ 44.644″ E	260	52° 44′ 49.236″ N	2° 15′ 51.345″ E
01					
21	52° 42′	2° 1′ 40.338″	261	52° 44′	2° 15′ 52 1 60″ E
	31.056" N	E		49.268" N	53.169" E
22	52° 42′	2° 1′ 39.044″	262	52° 44′	2° 15′
	30.948" N	E		49.284" N	53.754″ E
23	52° 42′	2° 1′ 34.686″	263	52° 44′	2° 15′
	30.701" N	E	200	49.311" N	54.339" E
24	52° 42′	2° 1′ 30.309″	264	52° 44′	2° 15′
	30.654" N	E	201	49.422" N	56.340" E
25	52° 42′	2° 1′ 29.003″	265	52° 44′	2° 15′
	30.675" N	E	205	49.460" N	56.922" E
26	52° 42′	2° 1′ 25.173″	266	52° 44′	2° 15′
	30.833" N	E	266	49.509" N	57.503" E
27	52° 42′	2° 0′ 49.768″	2.67	52° 44′	2° 15′
	33.173″ N	Е	267	49.680″ N	59.308" E
28	52° 42′	2° 0′ 40.941″		52° 44′	2° 15′
-	34.216" N	E	268	49.731" N	59.809" E
29	52° 42′	2° 0′ 39.649″		52° 44′	2° 16′ 0.309″
2)	34.439" N	E	269	49.791" N	E 10 0.507
30	52° 42′	2° 0′ 35.379″		52° 44′	2° 16′
30	32 42 35.302" N	2 0 33.379 E	270	52 44 51.112" N	10.573" E
31		L			
51	52° 42′ 41 640″ N	2° 0′ 7.655″ E	271	52° 44′ 51.112″ N	2° 16′ 10.573″ E
22	41.649″ N	2 0 7.033 E			
32	52° 42′	2 0 0/ 0 072// F	272	52° 45′	2° 23′
	43.788″ N	2° 0′ 0.073″ E		49.555" N	47.080″ E
33	52° 42′	1° 59′	273	52° 45′	2° 23′
	44.149" N	59.016" E		49.557" N	47.097" E
34	52° 42′	1° 59′	274	52° 46′	2° 26′
	45.445" N	55.557" E	27.	11.399" N	38.781″ E
35	52° 42′	1° 59′	275	52° 46′	2° 26′
	55.437" N	30.877" E	215	11.399" N	38.782″ E
36	52° 42′	1° 59′	276	52° 46′	2° 32′
	55.855" N	29.924" E	270	58.179″ N	48.486" E
37	52° 42′	1° 59′	077	52° 46′	2° 32′
	58.378" N	24.593" E	277	59.273″ N	57.168″ E
38	52° 42′	1° 59′	070	52° 47′	2° 33′
	58.842″ N	23.685″ E	278	4.976″ N	42.433″ E
39	52° 43′	1° 59′		52° 47′	2° 33′
• •	0.673" N	20.588" E	279	5.398" N	45.780″ E
40	52° 43′	1° 59′		52° 47′	2° 33′
10	2.861" N	17.394" E	280	6.366" N	53.472″ E
41	52° 43′	1° 58′		52° 47′	2° 33′
TI	17.859" N	57.179″ E	281	6.366" N	2 33 53.473″ E
42	52° 43′	1° 58′		52° 47′	2° 35′
72	52 43 19.625" N	1 38 54.953" E	282	32 47 20.744" N	2 33 47.803″ E
12	52° 43'	1° 58′		52° 47'	2° 35′
43			283		
4.4	21.284" N	53.106" E		20.744" N	47.804" E
44	52° 43′	1° 58′	284	52° 47′	2° 35′
	21.796" N	52.576" E		21.786" N	56.101" E
45	52° 43′	1° 58′	285	52° 48′	2° 43′
	23.547" N	50.895" E		16.490" N	13.626″ E

46	52° 45′ 46 103″ N	1° 56′ 43.184″ E	286	52° 48′ 20 763″ N	2° 43′ 47 064″ E
17	46.103" N			20.763" N	47.964" E
47	52° 46′	1° 56′	287	52° 48′	2° 43′
	2.160" N	27.260" E		21.026" N	49.928" E
48	52° 46′	1° 56′	288	52° 48′	2° 43′
	3.532" N	26.078" E		21.364" N	51.862" E
49	52° 46′	1° 56′	289	52° 48′	2° 43′
	17.577″ N	12.146" E	207	21.774" N	53.756″ E
50	52° 46′	1° 55′	290	52° 48′	2° 43′
	37.038" N	33.566" E	290	22.256" N	55.605" E
51	52° 46′	1° 54′	201	52° 48′	2° 43′
	51.513″ N	38.977" E	291	22.808" N	57.400" E
52	52° 46′	1° 53′		52° 48′	2° 43′
	58.151″ N	21.115" E	292	23.426" N	59.134" E
53	52° 46′	1° 52′		52° 48′	2° 44′ 0.801″
	59.490" N	52.341" E	293	24.109" N	E
54	52° 47′	1° 39′		52° 48′	2° 44′ 2.393″
54	32.039" N	38.159″ E	294	24.854" N	2 44 2.393 E
<i>E E</i>					
55	52° 47′	1° 39′ 26 152″ E	295	52° 48'	2° 44′ 3.905″
	32.129" N	36.152" E		25.659" N	E
56	52° 47′	1° 39′	296	52° 48′	2° 44′ 5.331″
	32.273" N	33.526″ E		26.519" N	E
57	52° 47′	1° 39′	297	52° 48′	2° 44′ 6.665″
	32.388" N	31.565" E	271	27.432" N	E
58	52° 47′	1° 39′	298	52° 48′	2° 44′ 7.902″
	32.521" N	29.607" E	298	28.394" N	Е
59	52° 47′	1° 39′	200	52° 48′	2° 44′ 9.037″
	32.673" N	27.652" E	299	29.401" N	E
60	52° 47′	1° 39′	200	52° 48′	2° 44′
	32.844″ N	25.702" E	300	30.449″ N	10.065" E
61	52° 47′	1° 39′	0.01	52° 48′	2° 44′
	33.028" N	23.714" E	301	31.534″ N	10.983" E
62	52° 47′	1° 39′	302	52° 48′	2° 44′
	33.217" N	21.768" E		32.652" N	11.786″ E
63	52° 47′	1° 39′		52° 48′	2° 44′
05	32.47 33.425" N	19.828″ E	303	32 48 33.799" N	2 44 12.472" E
61					
64	52° 47′ 22 652″ N	1° 39′ 17 802″ E	304	52° 48′ 24 060″ N	2° 44′ 12 027″ E
~ *	33.652" N	17.893" E		34.969" N	13.037" E
65	52° 47′	1° 39′	305	52° 48′	2° 44′
	33.896" N	15.964" E		36.158" N	13.481″ E
66	52° 47′	1° 39′	306	52° 48′	2° 44′
	34.155" N	13.999" E	500	37.362" N	13.800" E
67	52° 47′	1° 39′	307	52° 48′	2° 44′
	34.419" N	12.073" E	307	38.576" N	13.994" E
68	52° 47′	1° 39′	209	52° 48′	2° 44′
	34.701" N	10.153" E	308	39.226" N	14.030" E
69	52° 47′	1° 39′ 8.241″	200	52° 48′	2° 44′
	35.001" N	E	309	39.637" N	14.030″ E
70	52° 47′	1° 39′ 6.337″		52° 51′	2° 44′
, 0	35.320" N	E 1 59 0.557	310	27.631" N	14.043" E
71	52° 47′	1° 39′ 3.397″		52° 52'	2° 44′
/ 1	35.827" N		311	52° 52' 45.444″ N	2° 44' 14.140" E
	55.827" N	E		45.444″ N	$14.140^{\circ} E$

72	52° 47′	1° 39′ 1.398″	312	52° 52′	2° 44′
	36.193" N	E		48.722" N	14.144″ E
73	52° 47′	1° 38′	313	52° 52′	2° 44′
	36.599" N	59.313" E	515	48.725" N	14.157" E
74	52° 47′	1° 38′	314	52° 52′	2° 44′
	37.000" N	57.371" E	514	50.325" N	14.415″ E
75	52° 47′	1° 38′	315	52° 52′	2° 44′
	37.497" N	55.056" E	515	51.923" N	14.716" E
76	52° 47′	1° 38′	216	52° 52′	2° 44′
	37.906" N	53.193" E	316	53.518" N	15.059" E
77	52° 47′	1° 38′	0.1 5	52° 52′	2° 44′
	38.332" N	51.340" E	317	55.109″ N	15.444″ E
78	52° 47′	1° 38′		52° 52′	2° 44′
, 0	38.777" N	49.499″ E	318	56.696" N	15.871″ E
79	52° 47′	1° 38′		52° 52'	2° 44′
1)	39.239" N	47.670″ E	319	52 52 58.279" N	16.340" E
80					2° 44′
80	52° 48′	1° 33′ 22 001″ E	320	52° 52'	
0.1	59.902" N	32.091" E		59.857" N	16.851" E
81	52° 49′	1° 33′	321	52° 53′	2° 44′
	1.602″ N	25.973" E		1.430″ N	17.403″ E
82	52° 49′	1° 33′	322	52° 53′	2° 44′
	2.819" N	19.121″ E	322	2.998" N	17.996" E
83	52° 49′	1° 33′	323	52° 53′	2° 44′
	3.674″ N	13.073" E	525	4.559" N	18.631″ E
84	52° 49′	1° 33′ 6.096″	224	52° 53′	2° 44′
	3.797" N	E	324	6.115″ N	19.307" E
85	52° 49′	1° 32′	225	52° 53′	2° 44′
	2.898" N	57.549" E	325	7.663″ N	20.024" E
86	52° 49′	1° 32′		52° 53′	2° 44′
	4.139" N	54.271" E	326	9.205" N	20.782″ E
87	52° 49′	1° 32′		52° 53′	2° 44′
07	4.845" N	52.212" E	327	10.739" N	21.580" E
88	52° 49′	1° 32′		52° 53′	2° 44′
00	5.188" N	51.467" E	328	12.265" N	22.419" E
89	52° 49′	1° 32′		52° 53'	2° 44′
09	6.147" N	49.575″ E	329	13.782" N	2 44 23.298" E
00					
90	52° 49′ 7.035″ N	1° 32′ 47.473″ E	330	52° 53′ 15.291″ N	2° 44′ 24.217″ E
0.1					
91	52° 49′	1° 32′	331	52° 53'	2° 44′
	7.208″ N	46.999" E		16.791" N	25.175" E
92	52° 49′	1° 32′	332	52° 53′	2° 44′
	8.015" N	44.486" E		18.282″ N	26.173" E
93	52° 49′	1° 32′	333	52° 53′	2° 44′
	8.663″ N	42.319" E	555	19.763" N	27.211″ E
94	52° 49′	1° 32′	334	52° 53′	2° 44′
	8.910" N	41.417" E	334	21.233" N	28.287" E
95	52° 49′	1° 32′	225	52° 53′	2° 44′
	9.102″ N	41.019" E	335	22.693" N	29.402" E
96	52° 49′	1° 32′	22.5	52° 53′	2° 44′
	9.635" N	40.648" E	336	24.142" N	30.555″ E
97	52° 49′	1° 32′		52° 53'	2° 44′
	9.807" N	40.345" E	337	25.580" N	31.747" E
	2.007 11	10.010 L		20.000 11	

08	500 401	10 20/		520 521	20 444
98	52° 49′ 9.768″ N	1° 32′ 39.737″ E	338	52° 53′ 27.005″ N	2° 44′ 32.976″ E
99	52° 49′	1° 32′		52° 53′	2° 44′
	9.855" N	38.941" E	339	28.419" N	34.243″ E
100	52° 49′	1° 32′		52° 53′	2° 44′
100	10.086" N	38.247" E	340	29.821" N	2 тт 35.547″ Е
101	52° 49′	1° 32′		52° 53′	2° 44′
101	10.218" N	37.939" E	341	31.210" N	36.888" E
102	52° 49′	1° 32′		52° 53′	2° 44′
102	10.691" N	36.993" E	342	32.585" N	38.265" E
103	52° 49′	1° 32′		52° 53′	2° 44′
100	11.553" N	35.417″ E	343	33.947" N	39.679″ E
104	52° 49′	1° 32′		52° 53′	2° 44′
101	12.200" N	33.887" E	344	35.295" N	41.128″ E
105	52° 49′	1° 32′		52° 53'	2° 44′
105	12.742" N	32.736" E	345	36.630" N	42.613" E
106	52° 49′	1° 32′		52° 53'	2° 44′
100	13.080" N	31.922" E	346	32 - 53 37.949" N	2 44 44.133" E
107					2° 44′
107	52° 49′ 13.507″ N	1° 32′ 31.040″ E	347	52° 53′ 39.254″ N	2° 44' 45.687" E
100					
108	52° 49′ 14.325″ N	1° 32′ 29.767″ E	348	52° 53′	2° 44′ 47 276″ F
100				40.543" N	47.276" E
109	52° 49′	1° 32′	349	52° 53′	2° 44′
	14.340″ N	29.796" E		41.818″ N	48.898" E
110	52° 49′	1° 32′	350	52° 53′	2° 44′
	15.178″ N	31.478″ E		43.076" N	50.554" E
111	52° 49′	1° 32′	351	52° 53′	2° 44′
	15.638″ N	32.401" E	551	44.318" N	52.243" E
112	52° 49′	1° 33′	352	52° 53′	2° 44′
	45.178″ N	31.705" E	552	45.543" N	53.965" E
113	52° 49′	1° 33′	353	52° 53′	2° 44′
	45.944" N	33.513″ E		46.752" N	55.719" E
114	52° 49′	1° 33′	254	52° 53′	2° 44′
	46.772″ N	35.540" E	354	47.944″ N	57.504" E
115	52° 49′	1° 33′		52° 53′	2° 44′
	47.579″ N	37.591" E	355	49.118" N	59.321" E
116	52° 49′	1° 33′	254	52° 53′	2° 45′ 1.169″
	48.363" N	39.664" E	356	50.275" N	Е
117	52° 49′	1° 33′		52° 53′	2° 45′ 3.046″
	49.126" N	41.760″ E	357	51.414" N	E 15 5.010
118	52° 49′	1° 33′		52° 53′	2° 45′ 4.954″
	49.866" N	43.878″ E	358	52.534" N	E
119	52° 49′	1° 33′		52° 53′	2° 45′ 6.891″
	50.585" N	46.016" E	359	52 55 53.636" N	2 43 0.891 E
120	52° 49′	1° 33′		52° 53'	2° 45′ 8.857″
120	52° 49' 51.280" N	1° 33' 48.175″ Е	360	52° 53' 54.719" N	2° 45' 8.857" E
101					
121	52° 49′ 51 052″ N	1° 33′ 50 35 4″ E	361	52° 53′ 55 783″ N	2° 45′ 10 851″ E
100	51.952" N	50.354" E		55.783″ N	10.851" E
122	52° 49′	1° 33′	362	52° 53′	2° 45′
	52.602" N	52.551" E		56.827" N	12.874″ E
	500 401	1° 33′		52° 53′	2° 45′
123	52° 49′ 53.228″ N	54.767" E	363	57.852" N	14.923" E

124	52° 49′ 53.831″ N	1° 33′ 57.000″ E	364	52° 53′ 58.857″ N	2° 45′ 16.999″ E
125	52° 49′ 54.410″ N	1° 33′ 59.251″ E	365	52° 53′ 59.841″ N	2° 45′ 19.102″ E
126	52° 49′ 54.965″ N	1° 34′ 1.518″ E	366	52° 54′ 0.806″ N	2° 45′ 21.230″ E
127	52° 49′ 55.496″ N	1° 34′ 3.800″ E	367	52° 54′ 1.749″ N	2° 45′ 23.384″ E
128	52° 49′ 56.003″ N	1° 34′ 6.098″ E	368	52° 54′ 2.672″ N	2° 45′ 25.562″ E
129	52° 49′ 56.486″ N	1° 34′ 8.409″ E	369	52° 54′ 3.573″ N	2° 45′ 27.765″ E
130	52° 49′ 56.944″ N	1° 34′ 10.735″ E	370	52° 54′ 4.453″ N	2° 45′ 29.990″ E
131	52° 49′ 57.378″ N	1° 34′ 13.073″ E	371	52° 54′ 5.312″ N	2° 45′ 32.239″ E
132	52° 49′	1° 34′ 15.423″ E	372	52° 54′	2° 45′
133	57.786" N 52° 49' 58.171" N	15.425" E 1° 34' 17.784" E	373	6.144" N 53° 3' 46 017" N	34.497" E 2° 45' 35 676" E
134	58.171" N 52° 49'	1° 34′	374	46.017" N 53° 8'	35.676" E 2° 48'
135	58.530" N 52° 49'	20.157" E 1° 34'	375	27.770" N 53° 13'	38.429" E
136	58.864" N 52° 49'	22.539" E 1° 34'	376	52.532" N 53° 13'	3° 2′ 3.556″ E
137	59.173" N 52° 49'	24.930" E 1° 34'	377	53.967" N 53° 13'	<u>3° 2' 7.131" E</u> <u>3° 2' 21.440"</u>
138	59.456" N 52° 49'	27.330" E 1° 34'	378	59.710" N 53° 14'	E 3° 2' 43.249″
139	59.714" N 52° 49'	29.738" E 1° 34'	379	8.462" N 53° 14'	E 3° 3' 12.673"
140	59.947" N 52° 50'	32.153" E 1° 34'	380	21.060" N 53° 10'	E 2° 59′ 5.331″
141	0.154" N 52° 50'	34.574" E 1° 34'	381	30.403" N 53° 10'	E 2° 59′ 6.176″
142	0.336" N 52° 50'	37.001" E 1° 34'	382	30.387" N 53° 10'	E 2° 59′ 7.022″
143	0.492" N 52° 50'	39.433" E 1° 34'		30.403" N 53° 10'	E 2° 59′ 7.863″
144	0.623" N 52° 50'	41.869" E 1° 34'	383	30.451" N 53° 10'	E 2° 59' 8.699"
145	0.727" N 52° 50'	44.308" E 1° 34'	384	30.531" N 53° 10'	E 2° 59′ 9.524″
146	0.806" N 52° 50'	46.750" E 1° 34'	385	<u>30.641" N</u> 53° 10'	E 2° 59′
	0.859″ N	49.193″ E	386	30.783" N	10.336" E
147	52° 50' 0.887" N	1° 34′ 51.638″ E	387	53° 10′ 30.955″ N	2° 59′ 11.131″ E
148	52° 50′ 0.888″ N	1° 34′ 54.083″ E	388	53° 10′ 31.157″ N	2° 59′ 11.907″ E
149	52° 50′ 0.864″ N	1° 34′ 56.528″ E	389	53° 10′ 31.388″ N	2° 59′ 12.661″ E

150	52° 50′ 0.814″ N	1° 34′ 58.972″ E	390	53° 10′ 31.646″ N	2° 59′ 13.389″ E
151	52° 50′	1° 35′ 1.414″		53° 10′	2° 59′
	0.739" N	E	391	31.932" N	14.088" E
152	52° 50′	1° 35′ 3.854″		53° 10′	2° 59′
-	0.637" N	E	392	32.243″ N	14.756″ E
153	52° 50′	1° 35′ 6.290″		53° 10′	2° 59′
	0.510" N	E	393	32.579" N	15.390" E
154	52° 50′	1° 35′ 8.722″		53° 10′	2° 59′
	0.357" N	E	394	32.938" N	15.988" E
155	52° 50′	1° 35′	205	53° 10′	2° 59′
	0.178″ N	11.150" E	395	33.319" N	16.548" E
156	52° 49′	1° 35′	20.6	53° 10′	2° 59′
	59.974″ N	13.572″ E	396	33.721″ N	17.066" E
157	52° 49′	1° 35′	207	53° 10′	2° 59′
	59.745″ N	15.987" E	397	34.141″ N	17.541" E
158	52° 49′	1° 35′	200	53° 10′	2° 59′
	59.490" N	18.396" E	398	34.578" N	17.972″ E
159	52° 49′	1° 35′	200	53° 10′	2° 59′
	59.209" N	20.797" E	399	35.031" N	18.356" E
160	52° 49′	1° 35′	10.0	53° 10′	2° 59′
	58.903" N	23.190" E	400	35.497" N	18.692″ E
161	52° 49′	1° 35′	10.1	53° 10′	2° 59′
	58.573" N	25.573" E	401	35.975" N	18.978" E
162	52° 49′	1° 35′	10.0	53° 10′	2° 59′
	58.217″ N	27.947" E	402	36.463″ N	19.214″ E
163	52° 49′	1° 35′	102	53° 10′	2° 59′
	57.836" N	30.310" E	403	36.959" N	19.398" E
164	52° 49′	1° 35′	404	53° 10′	2° 59′
	57.430" N	32.661" E		37.461″ N	19.531" E
165	52° 49′	1° 35′	405	53° 10′	2° 59′
	56.999" N	35.001" E	405	37.966" N	19.610″ E
166	52° 49′	1° 35′	10.0	53° 10′	2° 59′
	56.544" N	37.328" E	406	38.474″ N	19.637" E
167	52° 49′	1° 35′	407	53° 10′	2° 59′
	56.064" N	39.641" E	407	38.982" N	19.610″ E
168	52° 49′	1° 35′	400	53° 10′	2° 59′
	55.560" N	41.940" E	408	39.488" N	19.531" E
169	52° 49′	1° 35′	400	53° 10′	2° 59′
	55.032" N	44.225" E	409	39.990" N	19.399" E
170	52° 49′	1° 35′	410	53° 10′	2° 59′
	54.480" N	46.494" E	410	40.485" N	19.214″ E
171	52° 49′	1° 35′	411	53° 10′	2° 59′
	53.904" N	48.746" E	411	40.973" N	18.978" E
172	52° 49′	1° 35′	412	53° 10′	2° 59′
	53.304" N	50.982" E	412	41.451″ N	18.692" E
173	52° 49′	1° 35′	412	53° 10′	2° 59′
	50 (01//))	53.200″ E	413	41.918" N	18.356" E
	52.681" N				
174	52.681" N 52° 49′	1° 35′	111	53° 10′	2° 59′
174			414	53° 10′ 42.370″ N	2° 59′ 17.972″ E
174 175	52° 49′	1° 35′	414		

176	52° 48′ 40.863″ N	1° 39′ 22.453″ E	416	53° 10′ 43.228″ N	2° 59′ 17.067″ E
177	52° 48′ 40.702″ N	1° 39′ 22.924″ E	417	53° 10′ 43.629″ N	2° 59′ 16.548″ E
178	52° 48′ 40.367″ N	1° 39′ 23.994″ E	418	53° 10′ 44.010″ N	2° 59′ 15.989″ E
179	52° 48′ 40.234″ N	1° 39′ 24.393″ E	419	53° 10′ 44.369″ N	2° 59′ 15.391″ E
180	52° 48′ 40.107″ N	1° 39′ 24.797″ E	420	53° 10′ 44.705″ N	2° 59′ 14.757″ E
181	52° 48' 39.560" N	1° 39′ 26.596″ E	421	53° 10′ 45.017″ N	2° 59′ 14.089″ E
182	52° 48′ 39.405″ N	1° 39' 27.124" E	422	53° 10′ 45.302″ N	2° 59′ 13.389″ E
183	52° 48′ 39.261″ N	1° 39′ 27.661″ E	423	53° 10′ 45.561″ N	2° 59′ 12.661″ E
184	52° 48′ 38.783″ N	1° 39′ 29.512″ E	424	53° 10′	2° 59′
185	52° 48′	1° 39′	425	45.792" N 53° 10' 45.002" N	11.908" E 2° 59' 11.122" E
186	38.649" N 52° 48' 28.525" N	30.055" E 1° 39' 20.000" E	426	45.993" N 53° 10'	11.132" E 2° 59' 10.226" E
187	38.525" N 52° 48'	30.606" E 1° 39'	427	46.166" N 53° 10'	10.336" E 2° 59' 9.524"
188	38.044" N 52° 48'	32.861" E 1° 39'	428	46.307" N 53° 10'	E 2° 59′ 8.699″
189	37.927" N 52° 48'	33.484" E 1° 39'	429	46.418" N 53° 10'	E 2° 59′ 7.864″
190	37.569" N 52° 48'	35.557" E 1° 39'	430	46.498" N 53° 10'	E 2° 59′ 7.022″
191	37.477" N 52° 48'	36.124" E 1° 39'	431	46.545" N 53° 10'	E 2° 59′ 6.176″
192	37.396" N 52° 48'	36.696" E 1° 39'	432	46.561" N 53° 10'	E 2° 59′ 5.331″
193	37.137" N 52° 48'	38.662" E 1° 39'		46.545" N 53° 10'	E 2° 59′ 4.489″
194	37.067" N 52° 48'	39.237" E 1° 39'	433	46.498" N 53° 10'	E 2° 59′ 3.654″
195	37.008" N 52° 48'	39.816" E 1° 39'	434	46.418" N 53° 10'	E 2° 59′ 2.829″
196	36.824" N 52° 48'	41.805" E 1° 39'	435	46.307" N 53° 10'	E 2° 59′ 2.017″
190	32 48 36.776" N 52° 48'	42.387" E 1° 39'	436	46.166" N 53° 10'	E 2° 59′ 1.221″
	36.739" N	42.971" E	437	45.993" N	E
198	52° 48′ 36.617″ N	1° 39′ 45.198″ E	438	53° 10′ 45.792″ N	2° 59′ 0.445″ E
199	52° 48′ 36.608″ N	1° 39′ 45.442″ E	439	53° 10′ 45.561″ N	2° 58′ 59.691″ E
200	52° 48′ 36.111″ N	1° 39′ 58.227″ E	440	53° 10′ 45.302″ N	2° 58′ 58.964″ E
210	52° 47′ 53.162″ N	1° 57′ 17.842″ E	441	53° 10′ 45.017″ N	2° 58′ 58.264″ E

2	28	3

202	52° 47′	1° 57′	442	53° 10′	2° 58′
	51.688″ N	48.405" E		44.705" N	57.596" E
203	52° 47′	1° 58′ 0.642″	443	53° 10′	2° 58′
	50.436" N	E	443	44.369" N	56.962" E
204	52° 47′	1° 58′	4 4 4	53° 10′	2° 58′
	48.214″ N	12.320" E	444	44.010" N	56.364" E
205	52° 47′	1° 58′		53° 10′	2° 58′
	42.495″ N	33.820″ E	445	43.629″ N	55.804" E
206	52° 47′	1° 58′		53° 10′	2° 58′
	36.793" N	49.157″ E	446	43.228" N	55.286" E
207	52° 47′	1° 59′ 7.719″		53° 10′	2° 58′
207	27.713" N	E	447	42.807" N	54.811" E
208	52° 47′	1° 59′			2° 58′
208	52 47 19.963" N	1 59 19.409" E	448	53° 10′ 42.370″ N	2 38 54.380" E
200					
209	52° 47′	1° 59′	449	53° 10′	2° 58′
	10.581" N	30.409" E		41.918″ N	53.997" E
210	52° 45′	2° 1′ 51.874″	450	53° 10′	2° 58′
	3.401″ N	E	450	41.451" N	53.661" E
211	52° 45′	2° 1′ 52.189″	451	53° 10′	2° 58′
	3.127″ N	E	431	40.973" N	53.374" E
212	52° 45′	2° 1′ 53.183″	150	53° 10′	2° 58′
	2.287″ N	Е	452	40.485″ N	53.139″ E
213	52° 45′	2° 1′ 53.925″		53° 10′	2° 58′
	1.635" N	E	453	39.990" N	52.954" E
214	52° 45′	2° 1′ 54.277″		53° 10′	2° 58′
214	1.351" N	E	454	39.488" N	52.822" E
215	52° 45′	2° 1′ 55.510″	455	53° 10′	2° 58′
215	0.388" N	E	433	38.982" N	52.742" E
217					
216	52° 45′	2° 1′ 55.877″	456	53° 10′	2° 58′
	0.110" N	E		38.474″ N	52.716" E
217	52° 44′	2° 1′ 56.258″	457	53° 10′	2° 58′
	59.840" N	E		37.966" N	52.742″ E
218	52° 44′	2° 1′ 57.587″	458	53° 10′	2° 58′
	58.926" N	E	430	37.461″ N	52.822″ E
219	52° 44′	2° 1′ 57.982″	459	53° 10′	2° 58′
	58.663″ N	E	439	36.959" N	52.954" E
220	52° 44′	2° 1′ 58.390″	1.00	53° 10′	2° 58′
	58.407″ N	Е	460	36.463″ N	53.139" E
221	52° 44′	2° 1′ 59.812″		53° 10′	2° 58′
	57.545" N	E	461	35.975" N	53.375" E
222	52° 44′			53° 10′	2° 58′
	57.298" N	2° 2′ 0.233″ E	462	35.497" N	53.661" E
223		2 2 0.233 E			
443	52° 44′ 57.059″ N	2° 2′ 0.667″ E	463	53° 10′ 35.031″ N	2° 58′ 53.997″ E
224		2 2 0.007 E			
224	52° 44′		464	53° 10′	2° 58′
225	56.253" N	2° 2′ 2.175″ E		34.578" N	54.381" E
225	52° 44′		465	53° 10′	2° 58′
	56.022" N	2° 2′ 2.621″ E	100	34.141" N	54.812″ E
226	52° 44′		466	53° 10′	2° 58′
	55.800" N	2° 2′ 3.078″ E	400	33.721" N	55.287" E
227	52° 44′		107	53° 10′	2° 58′
	55.053″ N	2° 2′ 4.667″ E	467	33.319" N	55.805" E

	52° 44′ 54.839″ N	2° 2′ 5.136″ E	468	53° 10′ 32.938″ N	2° 58′ 56.364″ E
229	52° 44′ 54.635″ N	2° 2′ 5.615″ E	469	53° 10′ 32.579″ N	2° 58′ 56.962″ E
230	52° 44′ 53.950″ N	2° 2′ 7.278″ E	470	53° 10′ 32.243″ N	2° 58′ 57.597″ E
231	52° 44′ 53.755″ N	2° 2′ 7.768″ E	471	53° 10′ 31.932″ N	2° 58′ 58.265″ E
232	52° 44′ 53.569″ N	2° 2′ 8.268″ E	472	53° 10′ 31.646″ N	2° 58′ 58.964″ E
233	52° 44′ 52.949″ N	2° 2′ 9.998″ E	473	53° 10′ 31.388″ N	2° 58′ 59.692″ E
234	52° 44′ 52.773″ N	2° 2′ 10.507″ E	474	53° 10′ 31.157″ N	2° 59′ 0.445″ E
235	52° 44′ 52.607″ N	2° 2′ 11.025″ E	475	53° 10′ 30.955″ N	2° 59′ 1.221″ E
236	52° 44′ 52.053″ N	2° 2′ 12.816″ E	476	53° 10′ 30.783″ N	2° 59′ 2.017″ E
237	52° 44′ 51.897″ N	2° 2′ 13.343″ E	477	53° 10′ 30.641″ N	2° 59′ 2.829″ E
238	52° 44′ 51.751″ N	2° 2′ 13.877″ E	478	53° 10′ 30.531″ N	2° 59′ 3.654″ E
239	52° 44′ 51.267″ N	2° 2′ 15.722″ E	479	53° 10′ 30.451″ N	2° 59′ 4.489″ E
240	52° 44′ 51.131″ N	2° 2′ 16.263″ E			

PART 3

Details of Licensed Marine Activities

1. Subject to the licence conditions at Part 4, this licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea of the substances and articles specified in paragraph 5 of Part 2 of this licence;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation;
- (d) the disposal of up to a total of 7,275,000 m³ of inert material of natural origin within the offshore Order limits produced during construction drilling or seabed preparation for foundation works and cable (including fibre optic cable) sandwave preparation works at disposal site references HU213, HU214, and HU217 within the extent of the Order limits seaward of MHWS, comprising—
 - (i) 3,600,000 m³ for cable (including fibre optic cable)installation;
 - (ii) 75,000 m³ for the offshore electrical platforms;
 - (iii) 3,100,000 m³ for the export cables (including fibre optic cables) within the Order limits excluding the Haisborough, Hammond and Winterton Special Area of Conservation;
 - (iv) 500,000 m³ for the export cables (including fibre optic cables) within the part of the Haisborough, Hammond and Winterton Special Area of Conservation that falls within the Order limits;
- (e) the removal of static fishing equipment; and
- (f) the disposal of drill arisings in connection with any foundation drilling up to a total of

14,137 m³.

2.—(1) Such activities are authorised in relation to the construction, maintenance and operation of (in the event of scenario 1 and scenario 2 unless otherwise stated below)—

(2) Work No. 2 (phase 1) – up to two offshore electrical platforms fixed to the seabed within the area shown on the works plan by one of the following foundation types: jacket (piled or suction caisson) or gravity base.

(3) Work No. 3A (phase 1) – a network of subsea cables and fibre optic cables within the area shown on the works plan comprising Work No. 2 and for the transmission of electricity and electronic communications between the offshore electrical platforms including one or more cable crossings.

(4) *Work No. 4A (phase 1)* – up to four subsea export cables and fibre optic cables between Work No. 2 and Work No. 4B consisting of subsea cables and fibre optic cables along routes within the Order limits seaward of MHWS including one or more offshore cable crossings.

(5) *Work No.* 4B (phase 1) – up to four subsea export cables and fibre optic cables between Work No. 4A and Work No. 4C consisting of subsea cables and fibre optic cables along routes within the Order limits between MLWS and MHWS at Happisburgh South, North Norfolk.

(6) In connection with such Work Nos. 2, 3A, 4A and 4B and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence.

(7) In connection with such Work Nos. 2, 3A, 4A and 4B, ancillary works within the Order limits which have been subject to an environmental impact assessment recorded in the environmental statement comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction and/ or maintenance of the authorised scheme; and
- (b) beacons, fenders and other navigational warning or ship impact protection works.

PART 4

Conditions

Design parameters

1.—(1) The dimensions of any offshore electrical platform forming part of the authorised scheme (excluding towers, helipads, masts and cranes) must not exceed100 metres in height when measured from HAT, 120 metres in length and 80 metres in width.

(2) In relation to an offshore electrical platform, each foundation using piles must not have—

- (a) more than 18 driven piles;
- (b) a pile diameter which is more than five metres; or
- (c) in relation to the offshore electrical platform(s), foundations with a combined seabed footprint area (excluding scour protection) of greater than 15,000m².

2. The total length of the cables and the area and volume of their cable protection must not exceed the individual distributions set out in Table 2 of the outline scour protection and cable protection plan and must not exceed the following—

Work	Length	Cable protection (m^3)	<i>Cable protection</i> (m^2)
Work No. 3A	90 kilometres	17,000 m ³	34,000 m ²
(Interconnector link)			
Work No. 4A and 4B	500 kilometres	69,236m ³	124,086m ²
(export cable)			

Phasing of the authorised scheme and scenarios

3.—(1) Taken together with works authorised and proposed to be constructed pursuant to licence 2 (transmission)—

- (a) the total number of offshore electrical platforms forming part of the authorised scheme must not exceed two;
- (b) the total amount of scour protection for the offshore electrical platforms forming part of the authorised scheme must not exceed 20,000m² and 100,000 m³ and must not exceed the distributed quantities of scour protection set out in Table 1 of the outline scour protection and cable protection plan;
- (c) the total amount of inert material of natural origin disposed within the offshore Order limits as part of the authorised scheme must not exceed 7,275,000 m³;
- (d) the total amount of disposal for drill arisings in connection with any foundation drilling must not exceed 14,137m³;
- (e) the total length of cable and the amount of cable protection must not exceed the figures stated in condition 2 of this licence;
- (f) in the Haisborough, Hammond and Winterton Special Area of Conservation, the total area of cable protection must not exceed 24,000m² and the total volume of cable protection must not exceed 13,600m³; and
- (g) in the Haisborough, Hammond and Winterton Special Area of Conservation, cable protection must not take the form of rock or gravel dumping where it is deployed to protect export cables apart from at cable crossing locations with existing cables and pipelines.

(2) Save where an equivalent notification has been given under condition 8 of the generation licence, prior to the commencement of the authorised scheme the undertaker must give notice to the MMO detailing—

- (a) whether the authorised scheme will be
 - (i) commenced under scenario 1 or scenario 2; and
 - (ii) constructed in a single offshore phase under this licence; or in two offshore phases under this licence and licence 2 (transmission).

(3) Where the authorised scheme will be constructed in two offshore phases the undertaker must give notice to the MMO detailing the total number of offshore electrical platforms to be constructed in each phase.

(4) In the event of scenario 1, the undertaker may commence either Work No. 3A or Work No. 3B and, for the avoidance of doubt, must not commence both of Work No. 3A and Work No. 3B.

Notifications and inspections

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

- (a) a copy of this licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 12; and
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 12; and
- (b) within 28 days of receipt of a copy of this licence those persons referred to in paragraph(a) above must provide a completed confirmation form to the MMO confirming receipt of this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 12 are permitted to carry out the licensed activities.

(3) Copies of this licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
- (c) on board each vessel or at the office of any transport manager with responsibility for vessels

from which authorised deposits or removals are to be made.

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

(5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Coastal Office in writing at least five days prior to the commencement of the licensed activities or any part of them, and within five days of completion of the licensed activities.

(7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details regarding the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—

- (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
- (b) as soon as reasonably practicable and no later than 24 hours of completion of construction of all offshore activities;

and confirmation of notification must be provided to the MMO within five days.

(8) A notice to mariners must be issued at least ten days prior to the commencement of the licensed activities or any part of them advising of the start date of Work No. 2 and the expected vessel routes from the construction ports to the relevant location. A second notice to mariners must be issued advising of the start date of Work Nos. 3A, 4A and 4B and the route of the sub-sea cables and fibre optic cables. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(9) The notices to mariners must be updated and reissued at weekly intervals during construction activities and at least five days before any planned operations and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under condition 9(1)(b). Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(10) The undertaker must notify the UK Hydrographic Office both of the commencement (ten days prior), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days.

(11) In case of damage to, or destruction or decay of the authorised scheme seaward of MHWS or any part thereof, the undertaker must as soon as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify MMO, MCA, Trinity House, the Kingfisher Information Service of Seafish, and the UK Hydrographic Office.

(12) In case of exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners by issuing a notice to mariners and by informing Kingfisher Information Service of the location and extent of exposure. Copies of all notices must be provided to the MMO and MCA within five days.

Aids to navigation

5.—(1) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS exhibit such lights, marks, sounds, signals and other aids to navigation, and to take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

(2) The undertaker must during the period from the start of construction of the authorised scheme to completion of decommissioning seaward of MHWS keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MHWS including the following—

- (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 five days of completion of construction of the authorised scheme.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation as set out in the aids to navigation management plan agreed pursuant to condition 9(1)(k) using the reporting system provided by Trinity House.

(4) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS notify Trinity House and the MMO of any failure of the aids to navigation and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 4(11) and condition 4(12) are invoked, the undertaker must lay down such marker buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Colouring of structures

6.—(1) Except as otherwise required by Trinity House the undertaker must colour all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height directed by Trinity House, or must colour the structure as directed by Trinity House from time to time.

(2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Chemicals, drilling and debris

7.—(1) Unless otherwise agreed in writing by the MMO all chemicals used in the construction of the authorised scheme must be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002⁹ (as amended).

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

(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 inform the MMO of the location and quantities of material disposed of each month under this licence. This information must be submitted to the MMO by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive. In the event that no activity has taken place during the reporting period the undertaker must provide a null (0) return to the MMO.

(5) The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within disposal site references HU213, HU214, and HU217 within the extent of the Order limits seaward of MHWS. Any other materials must be screened out before disposal of the inert material at this site.

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

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

(8) The undertaker must undertake the survey agreed under condition 9(1)(h)(iii) following the swath-bathymetry survey referred to in condition 15(2)(b). Should any such obstructions resulting from burial of Work No. 4A or 4B (export cables and fibre optic cables) be identified which, in the reasonable opinion of the MMO, may be considered to interfere with fishing, the undertaker must take such steps to remove them as the MMO in its reasonable opinion may require.

⁹ S.I. 2002/1355.

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

(10) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 9(1)(d)(i).

(11) All dropped objects must be reported to the MMO using the Dropped Object Procedure Form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of the Dropped Object Procedure Form, the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so.

Force majeure

8.—(1) If, due to stress of weather or any other cause the master of a vessel determines that it is necessary to make a deposit which is not authorised under this licence, whether within or outside of the Order limits because the safety of human life and/or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

(2) The unauthorised deposits must be removed at the expense of the undertaker unless written approval is obtained from the MMO.

Pre-construction plans and documentation

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

- (a) A design plan at a scale of between 1:25,000 and 1:50,000 including detailed representation on the most suitably scaled admiralty chart, to be agreed in writing with the MMO in consultation with Trinity House and the MCA which shows, in accordance with the Development Principles—
 - (i) the proposed location and choice of foundation of all offshore electrical platforms;
 - (ii) the height, length and width of all offshore electrical platforms;
 - (iii) the length and arrangement of all cables (including fibre optic cables) comprising Work Nos. 3A, 4A and 4B;
 - (iv) the dimensions of all foundations;
 - (v) the proposed layout of all offshore electrical platforms including any exclusion zones identified under sub-paragraph (1)(h)(iv);
 - (vi) a plan showing the indicative layout of all offshore electrical platforms including all exclusion zones (insofar as not shown in (v) above) and showing the indicative programming of particular works as set out in the indicative programme to be provided under sub-paragraph (1)(b)(iv); and
 - (vii) any exclusion zones/micrositing requirements identified in any mitigation scheme pursuant to sub-paragraph (1)(i);

to ensure conformity with the description of Works No. 2, 3A, 4A and 4B and compliance with conditions 1 to 3 above.

- (b) A construction programme and monitoring plan (which accords with the offshore in principle monitoring plan) to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant delivery of materials and installation works;
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with sub-paragraph (1)(h) and conditions 12, 13, 14 and 15; and
 - (iv) an indicative written construction programme for all offshore electrical platforms and cables including fibre optic cables comprised in the works at Part 3 (licensed marine

activities) of this Schedule (insofar as not shown in paragraph (ii) above);

with details pursuant to paragraph (iii) above to be submitted to the MMO in accordance with the following—

- (aa) at least four months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
- (bb) at least four months prior to construction, detail on construction monitoring; and
- (cc) at least four months prior to commissioning, detail of post-construction (and operational) monitoring;

unless otherwise agreed in writing with the MMO.

- (c) A construction method statement in accordance with the construction methods assessed in the environmental statement and including details of—
 - (i) foundation installation methodology, including drilling methods and disposal of drill arisings and material extracted during seabed preparation for foundation works and having regard to any mitigation scheme pursuant to sub-paragraph (1)(i);
 - (ii) soft start procedures with specified duration periods;
 - (iii) offshore electrical platform location and installation, including scour protection;
 - (iv) cable (including fibre optic cable) installation;
 - (v) contractors;
 - (vi) vessels, vessels maintenance and vessel transit corridors; and
 - (vii) associated and ancillary works.
- (d) A project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation 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 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;
 - (iv) the appointment and responsibilities of a fisheries liaison officer; and
 - (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of commencement of licensed activities pursuant to condition 4 and to address the interaction of the licensed activities with fishing activities;
- (e) A scour protection and cable protection plan (in accordance with the outline scour protection and cable protection plan) providing details of the need, type, sources, quantity, distribution and installation methods for scour protection and cable (including fibre optic cable) protection. For the avoidance of doubt "distribution" in this sub- paragraph must include quantities in respect of each structure comprised in the offshore works and intended to be subject to scour protection.
- (f) In the event that piled foundations are proposed to be used, at least six months prior to commencement of licensed activities, a marine mammal mitigation protocol, in accordance with the draft marine mammal mitigation protocol, the intention of which is to prevent injury to marine mammals and following current best practice as advised by the relevant statutory nature conservation bodies.
- (g) A cable specification, installation and monitoring plan, for the installation and protection of cables outside of the Haisborough, Hammond and Winterton Special Area of Conservation, to include—
 - (i) technical specification of offshore cables (including fibre optic cable) below MHWS, 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 detailed cable (including fibre optic cable) laying plan for the Order limits, incorporating a burial risk assessment, encompassing the identification of any cable protection that exceeds 5% of navigable depth referenced to chart datum and, in the event that any area of cable protection exceeding 5% of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House) to be taken to ensure existing and future safe navigation is not compromised or such similar assessment to ascertain suitable burial depths and cable laying techniques, including cable landfall and cable protection measures;
- (iii) proposals for monitoring offshore cables including cable (including fibre optic cable) protection during the operational lifetime of the authorised scheme which includes a risk based approach to the management of unburied or shallow buried cables; and
- (iv) appropriate methods such as a trawl or drift net to be deployed along Work No. 4A and 4B (export cables and fibre optic cables), following the survey referred to in condition 15(2)(b) to assess any seabed obstructions resulting from burial of the export cables and fibre optic cables.
- (h) An archaeological written scheme of investigation in relation to the offshore Order limits seaward of mean high water, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body (and, if relevant, North Norfolk District Council) to include—
 - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
 - (v) monitoring of archaeological exclusion zones during and post construction;
 - (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS (Online Access to the Index of archaeological investigations) form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO (and North Norfolk District Council where the report relates to the intertidal area) that the OASIS form has been submitted to the National Record of the Historic Environment within two weeks of submission;
 - (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and
 - (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order Limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities.
- (i) A mitigation scheme for any habitats of principal importance identified by the survey referred to in condition 13(2)(a) and in accordance with the offshore in principle monitoring plan.
- (j) An offshore operations and maintenance plan, in accordance with the outline offshore operations and maintenance plan, to be submitted to the MMO at least four months prior to commencement of operation of the licensed activities and to provide for review and resubmission every three years during the operational phase.
- (k) An aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, to include details of how the undertaker will comply with the provisions of condition 5 for the lifetime of the authorised scheme.
- (l) In the event that piled foundations are proposed to be used, at least six months prior to commencement of licensed activities, a site integrity plan which accords with the principles

set out in the in principle Norfolk Boreas Southern North Sea Special Area of Conservation Site Integrity Plan, and which the MMO is satisfied would provide such mitigation as is necessary to avoid adversely affecting the integrity (within the meaning of the 2017 Regulations) of a relevant site, to the extent that harbour porpoise are a protected feature of that site.

(m) At least six months prior to commencement of licensed activities, a cable specification, installation and monitoring plan for the installation and protection of cables within the Haisborough, Hammond and Winterton Special Area of Conservation which accords with the principles set out in the outline Norfolk Boreas Haisborough, Hammond and Winterton Special Area of Conservation Cable Specification, Installation and Monitoring Plan such plan to be submitted to the MMO (in consultation with the relevant statutory nature conservation body).

(2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific written scheme of investigation which is itself in accordance with the details set out in the outline offshore written scheme of investigation (offshore), and which has been submitted to and approved by the MMO.

(3) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive the pile foundations must not exceed—

- (a) 5,000kJ in respect of monopile foundations; and
- (b) 2,700 kJ in respect of pin piles.

10.—(1) Any archaeological reports produced in accordance with condition 9(1)(h)(iii) must be agreed with the MMO in consultation with the statutory historic body (and, if relevant, North Norfolk District Council).

(2) The design plan required by condition 9(1)(a) must be prepared by the undertaker and determined by the MMO in accordance with the Development Principles.

(3) Each programme, statement, plan, protocol or scheme required to be approved under condition 9 must be submitted for approval at least four months prior to the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(4) No licensed activity may commence until for that licensed activity the MMO has approved in writing any relevant programme, statement, plan, protocol or scheme required to be approved under condition 9.

(5) Unless otherwise agreed in writing with the undertaker, the MMO must use reasonable endeavours to determine an application for approval made under condition 9 as soon as practicable and in any event within a period of four months commencing on the date the application is received by the MMO.

(6) The licensed activities must be carried out in accordance with the plans, protocols, statements, schemes and details approved under condition 9, unless otherwise agreed in writing by the MMO.

(7) No part of the authorised scheme may commence until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed MCA recommendations as appropriate to the authorised scheme contained within MGN543 "Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues" and its annexes.

Post-construction plans and documents

11. The undertaker must conduct a swath bathymetric survey to IHO S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out and provide the data and survey report(s) to the MMO, MCA and UKHO.

Reporting of engaged agents, contractors and vessels

12.—(1) The undertaker must provide the following information to the MMO—

(a) the name and function of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and

(b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO in writing prior to the agent, contractor or vessel engaging in the licensed activities.

Pre-construction monitoring and surveys

13.—(1) The undertaker must, in discharging condition 9(1)(b), submit details (which accord with the offshore in principle monitoring plan) for written approval by the MMO in consultation with the relevant statutory bodies of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report; and—

- (a) the survey proposals 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 and/or will enable the validation or otherwise of key predictions in the environmental statement; and
- (b) 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 preconstruction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

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

- (a) undertake appropriate surveys to determine the location and extent of any benthic communities/benthos constituting Annex 1 reef habitats of principal importance in whole or in part inside the area(s) within the Order limits in which it is proposed to carry out construction works;
- (b) undertake a full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works; and
- (c) undertake or contribute to any marine mammal monitoring referred to in the in principle monitoring plan submitted in accordance with condition 9(1)(b).

(3) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation bodies.

Construction monitoring

14. -(1) The undertaker must, in discharging condition 9(1)(b), submit details (which accord with the offshore in principle monitoring plan) for approval by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives. In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.

(2) The undertaker must carry out the surveys approved under sub-paragraph (1), including any further noise monitoring required in writing by the MMO, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(3) The results of the initial noise measurements monitored in accordance with sub-paragraph (1) must be provided to the MMO within six weeks of the installation of the first four piled foundations of each piled foundation type. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the opinion of the MMO in consultation with the relevant statutory nature conservation body, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have

been agreed.

(4) In the event that driven or part driven pile foundations are proposed to be used, the details submitted in accordance with the offshore in principle monitoring plan must include proposals for monitoring marine mammals.

Post construction

15.—(1) The undertaker must, in discharging condition 9(1)(b), submit details (which accord with the offshore in principle monitoring plan) for approval by the MMO in consultation with relevant statutory bodies of proposed post-construction surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals 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 and/or will enable the validation or otherwise of key predictions in the environmental statement.

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

- (a) undertake an appropriate survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance constituting Annex 1 reef habitats identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey;
- (b) undertake, within twelve months of completion of the licensed activities, one full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables including fibre optic cables have been buried or protected; and
- (c) undertake or contribute to any marine mammal monitoring referred to in the in principle monitoring plan submitted in accordance with condition 9(1)(b).

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

(4) Following installation of cables, the cable (including fibre optic cables) monitoring plan required under condition 9(1)(g)(iii) must be updated with the results of the post installation surveys. The plan must be implemented during the operational lifetime of the authorised scheme and reviewed as specified within the plan, following cable burial surveys, or as instructed by the MMO.

Reporting of impact pile driving

16.—(1) Only when driven or part-driven pile foundations are proposed to be used as part of the foundation installation the undertaker must provide the following information to the UK Marine Noise Registry—

- (a) prior to the commencement of the licenced activities, information on the expected location, start and end dates of impact pile driving to satisfy the Marine Noise Registry's Forward Look requirements;
- (b) at six month intervals following the commencement of pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements; and
- (c) within 12 weeks of completion of impact pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements.

(2) The undertaker must notify the MMO of the successful submission of Forward Look or Close Out data pursuant to paragraph (1) above within 7 days of the submission.

(3) For the purpose of this condition—

"Marine Noise Registry" means the database developed and maintained by JNCC on behalf of Defra to record the spatial and temporal distribution of impulsive noise generating activities in

UK seas; and

"Forward Look" and "Close Out" requirements are as set out in the UK Marine Noise Registry Information Document Version 1 (July 2015) or any updated information document.

Reporting of scour and cable protection

17.—(1) Not more than 4 months following completion of the construction phase of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection and scour protection used for the authorised scheme.

(2) The report must include the following information—

- (a) location of the cable protection and scour protection;
- (b) volume of cable protection and scour protection; and
- (c) any other information relating to the cable protection as agreed between the MMO and the undertaker.

Coordination with Norfolk Vanguard Offshore Wind Farm

18.—(1) Prior to submission of each of the pre-construction plans and documentation required to be submitted under condition 9(1) above the undertaker must provide a copy of the relevant plans and documentation to the undertaker of the offshore element of the Norfolk Vanguard Offshore Wind Farm to enable that undertaker to provide any comments on the plans and documentation.

(2) The undertaker must participate in liaison meetings with the undertaker of the offshore element of the Norfolk Vanguard Offshore Wind Farm as requested from time to time by the MMO in writing in advance, which meeting will be chaired by the MMO and may consider such matters as are determined by the MMO relating to the efficient operation of the offshore element of the authorised project and the offshore element of the Norfolk Vanguard Offshore Wind Farm.

Restriction on cable installation construction works

19. During the months of January to March inclusive, construction activities consisting of cable installation for Work No. 4A and Work No. 4B must only take place with one main cable laying vessel.

SCHEDULE 12

Article 32

Deemed Licence under the 2009 Act – Transmission Assets (Licence 2 – Phase 2)

PART 1

Interpretation

1.—(1) In this licence—

"the 2004 Act" means the Energy Act 2004;

"the 2008 Act" means the Planning Act 2008;

"the 2009 Act" means the Marine and Coastal Access Act 2009;

"the 2011 Regulations" means the Marine Licensing (Licence Application Appeals) Regulations 2011¹⁰;

"the 2017 Regulations" means the Offshore Marine Habitats and Species Regulations 2017¹¹; "authorised deposits" means the substances and articles specified in paragraph 5 of Part 2 of this

¹⁰ S.I. 2011/934.

¹¹ S.I. 2017/1013.

licence;

"authorised scheme" means Work Nos. 2, 3A, 4A, and 4B described in Part 3 of this licence or any part of that work;

"cable protection" means measures for offshore cable crossings and where cable burial is not possible due to ground conditions or approaching offshore structures, to protect cables and fibre optic cables and prevent loss of seabed sediment by use of grout bags, protective aprons, mattresses, flow energy dissipation (frond) devices or rock and gravel dumping;

"commence" means the first carrying out of any part of the licensed activities save for preconstruction surveys and monitoring and "commenced" and "commencement" must be construed accordingly;

"condition" means a condition in Part 4 of this licence;

"Defence Infrastructure Organisation Safeguarding" means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands B75 7RL and any successor body to its functions;

"Development Principles" means the document certified as the Development Principles by the Secretary of State for the purposes of the Order;

"draft marine mammal mitigation protocol" means the document certified as the draft marine mammal mitigation protocol by the Secretary of State for the purposes of this Order;

"enforcement officer" means a person authorised to carry out enforcement duties under Chapter 3 of Part 4 (marine licensing) of the 2009 Act;

"environmental statement" means the document certified as the environmental statement by the Secretary of State for the purposes of this Order;

"gravity base" means a structure principally of steel, concrete, or steel and concrete which rests on the seabed either due to its own weight with or without added ballast or additional skirts and associated materials and equipment including scour protection, J-tubes, transition piece, corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"HAT" means highest astronomical tide;

"in principle Norfolk Boreas Southern North Sea Special Area of Conservation Site Integrity Plan" means the document certified as the in principle Norfolk Boreas Southern North Sea Special Area of Conservation Site Integrity Plan by the Secretary of State for the purposes of this Order;

"jacket foundation" means a steel jacket/ lattice-type structure constructed of steel which is fixed to the seabed at three or more points with steel pin piles or steel suction caissons and associated materials and equipment including scour protection, J-tubes, transition piece, corrosion protection systems, fenders and maintenance equipment, boat access systems, access ladders and access and rest platform(s) and equipment;

"Kingfisher Fortnightly Bulletin" means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO for the purposes of this licence;

"licence 1 (transmission)" means the licence set out in Schedule 11 (deemed licence under the 2009 Act – transmission assets (licence 1 – phase 1));

"licensed activities" means the activities specified in Part 3 of this licence;

"maintain" includes inspect, upkeep, repair, adjust, and alter and further includes remove, reconstruct and replace (but only in relation to any of the ancillary works in Part 2 of Schedule 1 (ancillary works), any cable and any component part of any wind turbine generator, offshore electrical platform, offshore service platform or meteorological mast described in Part 1 of Schedule 1 (authorised development) not including the alteration, removal or replacement of foundations), to the extent assessed in the environmental statement; and "maintenance" is construed accordingly;

"Marine Management Organisation" or "MMO" means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence;

"MCA" means the Maritime and Coastguard Agency;

"mean high water springs" or "MHWS" means the highest level which spring tides reach on average over a period of time;

"meteorological mast" means a mast housing equipment to measure wind speed and other wind characteristics, including a topside housing electrical, communication and associated equipment and marking and lighting;

"Norfolk Boreas Offshore Wind Farm" means the offshore wind farm authorised pursuant to the Order

"Norfolk Vanguard Offshore Wind Farm" means the offshore wind farm for which Norfolk Vanguard Limited has sought a development consent order pursuant to an application submitted to the Secretary of State on 26th June 2018;

"notice to mariners" means a notice issued by the undertaker to mariners to inform them of issues that affect the safety of navigation;

"offshore cables" means any cables offshore;

"offshore electrical platform" means a platform attached to the seabed by means of a foundation, with one or more decks, whether open or fully clad, accommodating electrical power transformers, switchgear, instrumentation, protection and control systems and other associated equipment and facilities to enable the transmission of electronic communications and for electricity to be collected at, and exported from, the platform;

"offshore in principle monitoring plan" means the document certified as the offshore in principle monitoring plan by the Secretary of State for the purposes of this Order;

"offshore Order limits" means the limits shown on the works plan within which the authorised scheme may be carried out, whose grid coordinates are set out in Part 2 of this licence;

"the Order" means the Norfolk Boreas Offshore Wind Farm Order 2021;

"outline fisheries liaison and co-existence plan" means the document certified as the outline fisheries liaison and co-existence plan by the Secretary of State for the purposes of this Order;

"outline offshore operations and maintenance plan" means the document certified as the outline offshore operations and maintenance plan by the Secretary of State for the purposes of the Order;

"outline Norfolk Boreas Haisborough, Hammond and Winterton Special Area of Conservation Cable Specification, Installation and Monitoring Plan" means the document certified as the outline Norfolk Boreas Haisborough, Hammond and Winterton Special Area of Conservation Cable Specification, Installation and Monitoring Plan by the Secretary of State for the purposes of this Order;

"outline written scheme of investigation (offshore)" means the document certified as the outline written scheme of investigation (offshore) by the Secretary of State for the purposes of this Order;

"pin piles" means steel cylindrical piles driven and/or drilled into the seabed to secure steel jacket foundations;

"relevant site" means a European offshore marine site or a European site as defined in the 2017 Regulations;

"scenario 1" means the scenario in which the Norfolk Vanguard Offshore Wind Farm proceeds to construction and carries out enabling works, including the laying of onshore cable ducts, to benefit the Norfolk Boreas Offshore Wind Farm;

"scenario 2" means the scenario in which the Norfolk Vanguard Offshore Wind Farm does not proceed to construction and Norfolk Boreas Offshore Wind Farm is built out as an independent project including the laying of onshore cable ducts;

"scour protection" means measures to prevent loss of seabed sediment around any marine structure placed in or on the seabed by use of protective aprons, mattresses with or without frond devices, or rock and gravel placement.

"single offshore phase" means carrying out all offshore works as a single construction operation;

"statutory historic body" means Historic Buildings and Monuments Commission for England (Historic England) or its successor in function;

"statutory nature conservation body" means an organisation charged by government with advising on nature conservation matters;

"suction caisson" means a large diameter steel cylindrical shell which penetrates the seabed assisted by a hydrostatic pressure differential for fixity of foundations;

"Trinity House" means the Corporation of Trinity House of Deptford Strond;

"two offshore phases" means carrying out the offshore works as two separate construction operations;

"UK Hydrographic Office" means the UK Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

"undertaker" means Norfolk Boreas Limited (Company No. 03722058) whose registered office is at 5th Floor, 70 St Mary Axe, London EC3A 8BE;

"vessel" means every description of vessel, however propelled or moved, and includes a nondisplacement 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;

"Work No. 3B" means up to three project interconnector cables to connect Work No. 2 with the Norfolk Vanguard Offshore Wind Farm licensed under Schedule 13 of this Order;

"Work No. 4C" means the onshore transmission works at the landfall consisting of up to two transition jointing pits and up to four cables to be laid in ducts underground and associated fibre optic cables laid within cable ducts from MHWS at Happisburgh South, North Norfolk; and

"works plan" means the plan certified as the works plan by the Secretary of State for the purposes of the Order.

(2) A reference to any statute, order, regulation or similar instrument is construed as 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) Unless otherwise indicated—

- (a) all times are taken to be Greenwich Mean Time (GMT); and
- (b) all co-ordinates are taken to be latitude and longitude degrees and minutes to two decimal places.

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

(a) Marine Management Organisation

Marine Licensing Lancaster House Hampshire Court Newcastle Business Park Newcastle upon Tyne NE4 7YH Tel:

(b) Marine Management Organisation (local office)

Lowestoft Office Pakefield Road Lowestoft Suffolk NR33 0HT Tel: ;

(c) Trinity House Tower Hill LondonEC3N 4DH Tel: ;

- (d) The United Kingdom Hydrographic Office Admiralty Way
 Taunton
 Somerset
 TA1 2DN
 Tel: _____;
- (e) Maritime and Coastguard Agency Navigation Safety Branch
 Bay 2/20, Spring Place
 105 Commercial Road

Southampton	
SO15 1EG	
Tel:	;

- (f) Centre for Environment, Fisheries and Aquaculture Science Pakefield Road Lowestoft Suffolk NR33 0HT Tel: _____;
- (g) Natural England Area 1C, Nobel House 17 Smith Square London SW1P 2AL Tel: _____;
- (h) Historic England
 Cannon Bridge House
 25 Dowgate Hill
 London
 EC4R 2YA
 Tel:

PART 2

Licensed Marine Activities – General

1. This licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108 (reviews and revisions of decommissioning programmes), and the completion of such programme has been confirmed by the Secretary of State in writing.

2. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence only apply to a transfer not falling within article 6 (benefit of the Order).

3. With respect to any condition which requires the licensed activities be carried out in accordance with the plans, protocols or statements approved under this Schedule, the approved details, plan or scheme are taken to include any amendments that may subsequently be approved in writing by the MMO.

4. Any amendments to or variations from the approved plans, protocols or statements must be minor or immaterial and it must be demonstrated to the satisfaction of the MMO that they are unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

5. The substances or articles authorised for deposit at sea are—

- (a) iron and steel, copper and aluminium;
- (b) stone and rock;
- (c) concrete;

- (d) sand and gravel;
- (e) plastic and synthetic;
- (f) material extracted from within the offshore Order limits during construction drilling or seabed preparation for foundation works and cable (including fibre optic cable) sandwave preparation works; and
- (g) marine coatings, other chemicals and timber.

6. The grid coordinates for the authorised scheme are specified below—

Point	Latitude (DMS)	Longitude (DMS)	Point	Latitude (DMS)	Longitude (DMS)
1	53° 14′ 28.789″ N	3° 3′ 31.257″ E	241	52° 44′ 51.006″ N	2° 2′ 16.812″ E
2	52° 56′ 14.962″ N	3° 8′ 41.012″ E	242	52° 44′ 50.593″ N	2° 2′ 18.703″ E
3	52° 52′ 23.652″ N	2° 46′ 27.791″ E	243	52° 44′ 50.478″ N	2° 2′ 19.257″ E
4	52° 47′ 34.455″ N	2° 46′ 27.112″ E	244	52° 44′ 50.373″ N	2° 2′ 19.818″ E
5	52° 47′ 27.871″ N	2° 45′ 34.063″ E	245	52° 44′ 50.034″ N	2° 2′ 21.747″ E
6	52° 47′ 16.559″ N	2° 44′ 3.046″ E	246	52° 44′ 49.940″ N	2° 2′ 22.313″ E
7	52° 47′ 15.589″ N	2° 43′ 55.247″ E	247	52° 44′ 49.857″ N	2° 2′ 22.883″ E
8	52° 47′ 15.589″ N	2° 43′ 55.243″ E	248	52° 44′ 49.592″ N	2° 2′ 24.844″ E
9	52° 47′ 14.341″ N	2° 43′ 45.216″ E	249	52° 44′ 49.520″ N	2° 2′ 25.418″ E
10	52° 47′ 13.615″ N	2° 43′ 39.381″ E	250	52° 44′ 49.459″ N	2° 2′ 25.996″ E
11	52° 43′ 46.039″ N	2° 16′ 19.075″ E	251	52° 44′ 49.268″ N	2° 2′ 27.980″ E
12	52° 43′ 45.182″ N	2° 16′ 10.004″ E	252	52° 44′ 49.218″ N	2° 2′ 28.561″ E
13	52° 43′ 44.634″ N	2° 16′ 0.162″ E	253	52° 44′ 49.179″ N	2° 2′ 29.143″ E
14	52° 43′ 44.531″ N	2° 15′ 54.221″ E	254	52° 44′ 49.065″ N	2° 2′ 31.144″ E
15	52° 43′ 44.490″ N	2° 15′ 51.462″ E	255	52° 44′ 49.037″ N	2° 2′ 31.728″ E
16	52° 43′ 44.512″ N	2° 7′ 23.550″ E	256	52° 44′ 49.021″ N	2° 2′ 32.314″ E
17	52° 42′ 44.166″ N	2° 3′ 14.512″ E	257	52° 44′ 48.989″ N	2° 2′ 34.021″ E
18	52° 42′ 43.152″ N	2° 3′ 9.802″ E	258	52° 44′ 48.983″ N	2° 2′ 34.638″ E
19	52° 42′ 42.369″ N	2° 3′ 4.946″ E	259	52° 44′ 49.220″ N	2° 15′ 49.970″ E
20	52° 42′ 31.534″ N	2° 1′ 44.644″ E	260	52° 44′ 49.236″ N	2° 15′ 51.345″ E
21	52° 42′ 31.056″ N	2° 1′ 40.338″ E	261	52° 44′ 49.268″ N	2° 15′ 53.169″ E

22	52° 42′ 30 048″ N	2° 1′ 39.044″ E	262	52° 44′ 40 284″ N	2° 15′ 52 754″ E
	30.948" N	Е		49.284" N	53.754″ E
23	52° 42′	2° 1′ 34.686″	263	52° 44′	2° 15′
	30.701" N	E	200	49.311" N	54.339" E
24	52° 42′	2° 1′ 30.309″	264	52° 44′	2° 15′
	30.654" N	E	264	49.422" N	56.340" E
25	52° 42′	2° 1′ 29.003″		52° 44′	2° 15′
	30.675" N	E	265	49.460" N	56.922″ E
26	52° 42′	2° 1′ 25.173″		52° 44′	2° 15′
20	30.833" N	E	266	49.509" N	57.503" E
- 27					2° 15′
27	52° 42′	2° 0′ 49.768″	267	52° 44′	
	33.173″ N	Е		49.680" N	59.308" E
28	52° 42′	2° 0′ 40.941″	268	52° 44′	2° 15′
	34.216" N	E	200	49.731" N	59.809" E
29	52° 42′	2° 0′ 39.649″	200	52° 44′	2° 16′ 0.309″
	34.439" N	Е	269	49.791" N	E
30	52° 42′	2° 0′ 35.379″		52° 44′	2° 16′
20	35.302" N	E	270	51.112" N	10.573" E
31	52° 42′	2		52° 44′	2° 16′
51	52 42 41.649" N	2° 0' 7 655" E	271		
		2° 0′ 7.655″ E		51.112" N	10.573" E
32	52° 42′		272	52° 45′	2° 23′
	43.788″ N	2° 0′ 0.073″ E	212	49.555″ N	47.080″ E
33	52° 42′	1° 59′	072	52° 45′	2° 23′
	44.149" N	59.016" E	273	49.557" N	47.097" E
34	52° 42′	1° 59′		52° 46′	2° 26′
	45.445″ N	55.557" E	274	11.399" N	38.781″ E
35	52° 42′	1° 59′		52° 46′	2° 26′
35	55.437" N	30.877" E	275	11.399" N	38.782″ E
36	52° 42′	1° 59′		52° 46′	2° 32′
30	55.855" N	29.924" E	276	52 40 58.179″ N	2 52 48.486″ E
37	52° 42′	1° 59′	277	52° 46′	2° 32′
	58.378" N	24.593" E		59.273" N	57.168″ E
38	52° 42′	1° 59′	278	52° 47′	2° 33′
	58.842″ N	23.685" E	278	4.976" N	42.433″ E
39	52° 43′	1° 59′	270	52° 47′	2° 33′
	0.673″ N	20.588" E	279	5.398″ N	45.780" E
40	52° 43′	1° 59′		52° 47′	2° 33′
10	2.861" N	17.394" E	280	6.366" N	53.472″ E
41	52° 43′	1° 58′		52° 47′	2° 33′
41			281		
- 10	17.859″ N	57.179" E		6.366" N	53.473" E
42	52° 43′	1° 58′	282	52° 47′	2° 35′
	19.625" N	54.953" E	_~_	20.744" N	47.803" E
43	52° 43′	1° 58′	283	52° 47′	2° 35′
	21.284" N	53.106" E	205	20.744″ N	47.804" E
44	52° 43′	1° 58′	20.4	52° 47′	2° 35′
	21.796" N	52.576" E	284	21.786" N	56.101″ E
45	52° 43′	1° 58′	285	52° 48′	2° 43′
	23.547" N	50.895" E		16.490" N	13.626″ E
16	52° 45'	1° 56'		52° 48′	2° 43′
46		43.184" E	286		
	46.103" N			20.763" N	47.964" E
47	52° 46′	1° 56′	287	52° 48′	2° 43′
	2.160" N	27.260" E		21.026" N	49.928" E

48	52° 46′ 3.532″ N	1° 56′ 26.078″ E	288	52° 48′ 21.364″ N	2° 43′ 51.862″ E
10					
49	52° 46′ 17.577″ N	1° 56′ 12.146″ E	289	52° 48′ 21.774″ N	2° 43′ 53.756″ E
50	52° 46′	1° 55′		52° 48′	2° 43′
50	37.038" N	33.566" E	290	22.256" N	55.605" E
51	52° 46′	1° 54′		52° 48′	2° 43′
	51.513" N	38.977" E	291	22.808" N	57.400" E
52	52° 46′	1° 53′	202	52° 48′	2° 43′
	58.151″ N	21.115" E	292	23.426" N	59.134″ E
53	52° 46′	1° 52′	202	52° 48′	2° 44′ 0.801″
	59.490" N	52.341" E	293	24.109" N	E
54	52° 47′	1° 39′	204	52° 48′	2° 44′ 2.393″
	32.039" N	38.159″ E	294	24.854" N	Е
55	52° 47′	1° 39′		52° 48′	2° 44′ 3.905″
	32.129″ N	36.152" E	295	25.659" N	E
56	52° 47′	1° 39′	207	52° 48′	2° 44′ 5.331″
	32.273" N	33.526" E	296	26.519" N	E
57	52° 47′	1° 39′	007	52° 48′	2° 44′ 6.665′
	32.388" N	31.565" E	297	27.432" N	Е
58	52° 47′	1° 39′		52° 48′	2° 44′ 7.902′
-	32.521" N	29.607" E	298	28.394" N	E
59	52° 47′	1° 39′		52° 48′	2° 44′ 9.037′
	32.673" N	27.652" E	299	29.401" N	E
50	52° 47′	1° 39′		52° 48′	2° 44′
	32.844" N	25.702" E	300	30.449" N	10.065″ E
61	52° 47′	1° 39′		52° 48′	2° 44′
01	33.028" N	23.714" E	301	31.534" N	10.983" E
62	52° 47′	1° 39′		52° 48′	2° 44′
	33.217" N	21.768" E	302	32.652" N	11.786″ E
63	52° 47′	1° 39′		52° 48′	2° 44′
00	33.425" N	19.828" E	303	33.799" N	12.472" E
64	52° 47′	1° 39′		52° 48′	2° 44′
04	32.47 33.652" N	1 39 17.893" E	304	32 48 34.969" N	2 44 13.037" E
65					
65	52° 47′ 33.896″ N	1° 39′ 15.964″ E	305	52° 48′ 36.158″ N	2° 44′ 13.481″ E
56	52° 47′ 34.155″ N	1° 39′ 13.999″ E	306	52° 48′ 37.362″ N	2° 44′ 13.800″ E
57	52° 47′	1° 39′ 12 072″ E	307	52° 48′	2° 44′ 12 00 4″ E
	34.419" N	12.073" E		38.576" N	13.994" E
68	52° 47′ 34 701″ N	1° 39′ 10 152″ E	308	52° 48′ 30 226″ N	2° 44′ 14 030″ E
	34.701" N	10.153" E		39.226" N	14.030" E
69	52° 47′	1° 39′ 8.241″	309	52° 48′	2° 44′
	35.001" N	E	-	39.637" N	14.030" E
70	52° 47′	1° 39′ 6.337″	310	52° 51′	2° 44′
	35.320" N	E	510	27.631" N	14.043" E
71	52° 47′	1° 39′ 3.397″	311	52° 52′	2° 44′
	35.827" N	E	511	45.444″ N	14.140" E
		10 201 1 2001		52° 52'	2° 44′
72	52° 47′	1° 39′ 1.398″	310		
72	52° 47′ 36.193″ N	Г° 39′ 1.398″ Е	312	48.722" N	14.144" E
72			312 313		

74	52° 47′ 37.000″ N	1° 38′ 57.371″ E	314	52° 52′ 50.325″ N	2° 44′ 14.415″ E
75	52° 47′ 37.497″ N	1° 38′ 55.056″ E	315	52° 52′ 51.923″ N	2° 44′ 14.716″ E
76	52° 47′	1° 38′	316	52° 52′	2° 44′
	37.906" N	53.193" E	510	53.518" N	15.059" E
77	52° 47′ 38.332″ N	1° 38′ 51.340″ E	317	52° 52′ 55.109″ N	2° 44′ 15.444″ E
78	52° 47′ 38.777″ N	1° 38′ 49.499″ E	318	52° 52′ 56.696″ N	2° 44′ 15.871″ E
79	52° 47′ 39.239″ N	1° 38′ 47.670″ E	319	52° 52′ 58.279″ N	2° 44′ 16.340″ E
80	52° 48′ 59.902″ N	1° 33′ 32.091″ E	320	52° 52' 59.857" N	2° 44′ 16.851″ E
81	52° 49′	1° 33′	321	52° 53′	2° 44′
	1.602″ N	25.973" E		1.430″ N	17.403″ E
82	52° 49′ 2.819″ N	1° 33′ 19.121″ E	322	52° 53' 2.998″ N	2° 44′ 17.996″ E
83	52° 49′ 3.674″ N	1° 33′ 13.073″ E	323	52° 53′ 4.559″ N	2° 44′ 18.631″ E
84	52° 49′ 3.797″ N	1° 33′ 6.096″ E	324	52° 53′ 6.115″ N	2° 44′ 19.307″ E
85	52° 49′ 2.898″ N	1° 32′ 57.549″ E	325	52° 53′ 7.663″ N	2° 44′ 20.024″ E
86	52° 49' 4.139" N	1° 32′ 54.271″ E	326	52° 53' 9.205" N	2° 44′ 20.782″ E
87	52° 49′	1° 32′	327	52° 53′	2° 44′
88	4.845" N 52° 49'	52.212" E 1° 32'	328	10.739" N 52° 53'	21.580" E 2° 44'
	5.188″ N	51.467" E	520	12.265" N	22.419" E
89	52° 49′ 6.147″ N	1° 32′ 49.575″ E	329	52° 53′ 13.782″ N	2° 44′ 23.298″ E
90	52° 49′ 7.035″ N	1° 32′ 47.473″ E	330	52° 53′ 15.291″ N	2° 44′ 24.217″ E
91	52° 49′ 7.208″ N	1° 32′ 46.999″ E	331	52° 53′ 16.791″ N	2° 44′ 25.175″ E
92	52° 49' 8.015" N	1° 32′ 44.486″ E	332	52° 53' 18.282" N	2° 44′ 26.173″ E
93	52° 49′	1° 32′	333	52° 53′	2° 44′
94	8.663" N 52° 49'	42.319" E 1° 32'	334	19.763" N 52° 53'	27.211" E 2° 44'
95	8.910" N 52° 49'	41.417" E 1° 32'	335	21.233" N 52° 53'	28.287" E 2° 44'
	9.102" N	41.019" E		22.693" N	29.402" E
96	52° 49′ 9.635″ N	1° 32′ 40.648″ E	336	52° 53′ 24.142″ N	2° 44′ 30.555″ E
97	52° 49′ 9.807″ N	1° 32′ 40.345″ E	337	52° 53′ 25.580″ N	2° 44′ 31.747″ E
		1° 32′		52° 53'	2° 44′
98	52° 49′ 9.768″ N	зэлэл 39.737″ Е	338	27.005" N	32.976″ E

100	52° 49′	1° 32′	340	52° 53′	2° 44′
	10.086" N	38.247" E	0.0	29.821" N	35.547" E
101	52° 49′	1° 32′	341	52° 53′	2° 44′
	10.218" N	37.939" E	541	31.210" N	36.888" E
102	52° 49′	1° 32′	240	52° 53′	2° 44′
	10.691" N	36.993" E	342	32.585" N	38.265″ E
103	52° 49′	1° 32′	2.42	52° 53′	2° 44′
	11.553″ N	35.417" E	343	33.947″ N	39.679″ E
104	52° 49′	1° 32′		52° 53′	2° 44′
	12.200″ N	33.887" E	344	35.295" N	41.128″ E
105	52° 49′	1° 32′		52° 53′	2° 44′
100	12.742" N	32.736" E	345	36.630" N	42.613″ E
106	52° 49′	1° 32′		52° 53'	2° 44′
100	13.080" N	31.922″ E	346	32-55 37.949" N	44.133" E
107	52° 49′				2° 44′
107		1° 32′ 31 040″ E	347	52° 53′ 30 254″ N	
100	13.507" N	31.040″ E		39.254" N	45.687" E
108	52° 49′	1° 32′	348	52° 53′	2° 44′
	14.325" N	29.767" E		40.543" N	47.276" E
109	52° 49′	1° 32′	349	52° 53′	2° 44′
	14.340" N	29.796" E	0.15	41.818″ N	48.898″ E
110	52° 49′	1° 32′	350	52° 53′	2° 44′
	15.178″ N	31.478″ E	330	43.076" N	50.554" E
111	52° 49′	1° 32′	251	52° 53′	2° 44′
	15.638" N	32.401" E	351	44.318" N	52.243″ E
112	52° 49′	1° 33′	252	52° 53′	2° 44′
	45.178″ N	31.705" E	352	45.543″ N	53.965″ E
113	52° 49′	1° 33′		52° 53′	2° 44′
	45.944" N	33.513″ E	353	46.752" N	55.719" E
114	52° 49′	1° 33′		52° 53′	2° 44′
111	46.772" N	35.540" E	354	47.944" N	57.504" E
115	52° 49'	1° 33′		52° 53'	2° 44′
115	47.579" N	37.591" E	355	49.118" N	59.321" E
116	52° 49′	1° 33′			2° 45′ 1.169″
110	52 49 48.363" N	1 55 39.664" E	356	52° 53′ 50.275″ N	2 43 1.109 E
117					
117	52° 49′	1° 33′	357	52° 53′	2° 45′ 3.046″
	49.126" N	41.760" E		51.414" N	Е
118	52° 49′	1° 33′	358	52° 53′	2° 45′ 4.954″
	49.866" N	43.878" E	220	52.534" N	E
119	52° 49′	1° 33′	359	52° 53′	2° 45′ 6.891″
	50.585" N	46.016" E	337	53.636" N	E
120	52° 49′	1° 33′	260	52° 53′	2° 45′ 8.857″
	51.280" N	48.175″ E	360	54.719″ N	E
121	52° 49′	1° 33′	2.61	52° 53′	2° 45′
	51.952" N	50.354" E	361	55.783″ N	10.851" E
122	52° 49′	1° 33′	0.12	52° 53′	2° 45′
	52.602" N	52.551" E	362	56.827" N	12.874″ E
123	52° 49'	1° 33′		52° 53'	2° 45′
140	53.228" N	54.767" E	363	52 55 57.852" N	2 45 14.923" E
124	52° 49′	1° 33′		52° 53'	2° 45′
124	52° 49' 53.831" N	1° 33' 57.000" E	364	52° 53' 58.857" N	2° 45' 16.999" E
105					
125	52° 49′	1° 33′	365	52° 53′	2° 45′
	54.410" N	59.251" E	-	59.841" N	19.102″ E

126	52° 49′	1° 34′ 1.518″	366	52° 54′	2° 45′
	54.965" N	E	200	0.806" N	21.230" E
127	52° 49′	1° 34′ 3.800″	367	52° 54′	2° 45′
	55.496" N	E	507	1.749″ N	23.384" E
128	52° 49′	1° 34′ 6.098″	368	52° 54′	2° 45′
	56.003" N	E	308	2.672" N	25.562" E
129	52° 49′	1° 34′ 8.409″	260	52° 54′	2° 45′
	56.486″ N	Е	369	3.573″ N	27.765″ E
130	52° 49′	1° 34′		52° 54′	2° 45′
	56.944" N	10.735" E	370	4.453" N	29.990" E
131	52° 49′	1° 34′		52° 54′	2° 45′
101	57.378" N	13.073" E	371	5.312" N	32.239" E
132	52° 49′	1° 34′		52° 54'	2° 45′
152	52 49 57.786" N	15.423" E	372	6.144" N	2 45 34.497" E
122					
133	52° 49′ 58 171″ N	1° 34′ 17 784″ E	373	53° 3'	2° 45′ 25 676″ E
101	58.171" N	17.784″ E		46.017" N	35.676" E
134	52° 49′	1° 34′	374	53° 8′	2° 48′
	58.530" N	20.157" E		27.770" N	38.429″ E
135	52° 49′	1° 34′	375	53° 13′	
	58.864" N	22.539" E	575	52.532" N	3° 2′ 3.556″ E
136	52° 49′	1° 34′	376	53° 13′	
	59.173″ N	24.930" E	570	53.967" N	3° 2′ 7.131″ E
137	52° 49′	1° 34′	277	53° 13′	3° 2′ 21.440″
	59.456" N	27.330" E	377	59.710" N	E
138	52° 49′	1° 34′	250	53° 14′	3° 2′ 43.249″
	59.714″ N	29.738" E	378	8.462″ N	Е
139	52° 49′	1° 34′		53° 14′	3° 3′ 12.673″
	59.947" N	32.153" E	379	21.060" N	E
140	52° 50'	1° 34′		53° 10′	
110	0.154" N	34.574" E	380	30.403" N	E
141	52° 50′	1° 34′		53° 10′	2° 59′ 6.176″
171	0.336" N	37.001" E	381	30.387" N	E 55 0.170
140				53° 10′	
142	52° 50′ 0.492″ N	1° 34′ 39.433″ E	382	30.403" N	2° 59′ 7.022″
					E
143	52° 50′	1° 34′	383	53° 10′	2° 59′ 7.863″
	0.623″ N	41.869" E		30.451" N	E
144	52° 50′	1° 34′	384	53° 10′	2° 59′ 8.699″
	0.727" N	44.308" E	001	30.531" N	E
145	52° 50′	1° 34′	385	53° 10′	2° 59′ 9.524″
	0.806" N	46.750" E	505	30.641" N	E
146	52° 50′	1° 34′	206	53° 10′	2° 59′
	0.859" N	49.193" E	386	30.783" N	10.336" E
147	52° 50′	1° 34′	387	53° 10′	2° 59′
	0.887″ N	51.638″ E		30.955″ N	11.131″ E
148	52° 50′	1° 34′		53° 10′	2° 59′
	0.888" N	54.083" E	388	31.157" N	11.907" E
149	52° 50′	1° 34′		53° 10′	2° 59′
177	0.864" N	56.528" E	389	31.388" N	2 59 12.661" E
150					
150	52° 50′	1° 34′ 58 072″ E	390	53° 10' 31 646" N	2° 59′ 13 380″ E
1 = 1	0.814" N	58.972" E		31.646" N	13.389" E
151	52° 50′	1° 35′ 1.414″	391	53° 10′	2° 59′
	0.739″ N	E		31.932" N	14.088" E

152	52° 50′ 0.637″ N	1° 35′ 3.854″ E	392	53° 10′ 32.243″ N	2° 59′ 14.756″ E
153	52° 50′	1° 35′ 6.290″		53° 10′	2° 59′
155	0.510" N	E 55 0.290	393	32.579" N	15.390" E
154	52° 50'	1° 35′ 8.722″		53° 10′	2° 59′
134	0.357" N	E 1 55 8.722	394	33 10 32.938" N	2 59 15.988" E
155					
155	52° 50′ 0.178″ N	1° 35′ 11 150″ E	395	53° 10′ 33.319″ N	2° 59'
156		11.150″ E			16.548" E
156	52° 49′ 59.974″ N	1° 35′ 13.572″ E	396	53° 10′ 33.721″ N	2° 59′ 17.066″ E
1.57					
157	52° 49′ 50 745″ N	1° 35′ 15.987″ E	397	53° 10′	2° 59' 17 5 41" E
150	59.745" N			34.141" N	17.541" E
158	52° 49′ 50,400″ N	1° 35′	398	53° 10'	2° 59′ 17 072″ F
	59.490" N	18.396" E		34.578" N	17.972″ E
159	52° 49′	1° 35′	399	53° 10′	2° 59′
	59.209" N	20.797" E		35.031" N	18.356" E
160	52° 49′	1° 35′	400	53° 10′	2° 59′
	58.903" N	23.190" E	100	35.497" N	18.692″ E
161	52° 49′	1° 35′	401	53° 10′	2° 59′
	58.573" N	25.573" E	101	35.975" N	18.978" E
162	52° 49′	1° 35′	402	53° 10′	2° 59′
	58.217" N	27.947" E	402	36.463" N	19.214" E
163	52° 49′	1° 35′	403	53° 10′	2° 59′
	57.836" N	30.310" E	403	36.959" N	19.398" E
164	52° 49′	1° 35′	404	53° 10′	2° 59′
	57.430" N	32.661" E	404	37.461" N	19.531" E
165	52° 49′	1° 35′	405	53° 10′	2° 59′
	56.999" N	35.001" E	403	37.966" N	19.610" E
166	52° 49′	1° 35′	406	53° 10′	2° 59′
	56.544" N	37.328" E	400	38.474″ N	19.637" E
167	52° 49′	1° 35′	407	53° 10′	2° 59′
	56.064" N	39.641" E	407	38.982" N	19.610" E
168	52° 49′	1° 35′	400	53° 10′	2° 59′
	55.560" N	41.940" E	408	39.488″ N	19.531" E
169	52° 49′	1° 35′	400	53° 10′	2° 59′
	55.032″ N	44.225″ E	409	39.990" N	19.399" E
170	52° 49′	1° 35′	410	53° 10′	2° 59′
	54.480" N	46.494″ E	410	40.485" N	19.214″ E
171	52° 49′	1° 35′	411	53° 10′	2° 59′
	53.904" N	48.746″ E	411	40.973" N	18.978″ E
172	52° 49′	1° 35′	410	53° 10′	2° 59′
	53.304" N	50.982" E	412	41.451" N	18.692″ E
173	52° 49′	1° 35′		53° 10′	2° 59′
	52.681" N	53.200″ E	413	41.918" N	18.356" E
174	52° 49′	1° 35′		53° 10′	2° 59′
	52.034" N	55.400" E	414	42.370" N	17.972″ E
175	52° 49′	1° 35′		53° 10′	2° 59′
	51.868" N	55.943" E	415	42.807" N	17.542″ E
176	52° 48′	1° 39′		53° 10′	2° 59′
110	40.863" N	22.453" E	416	43.228" N	17.067" E
177	52° 48′	1° 39′		53° 10′	2° 59′
111	40.702" N	22.924" E	417	43.629" N	16.548" E
				10.02/ 11	10.010 1

178	52° 48′ 40.367″ N	1° 39′ 23.994″ E	418	53° 10′ 44.010″ N	2° 59′ 15.989″ E
179	52° 48′ 40.234″ N	1° 39′ 24.393″ E	419	53° 10′ 44.369″ N	2° 59′ 15.391″ E
180	52° 48′ 40.107″ N	1° 39′ 24.797″ E	420	53° 10′ 44.705″ N	2° 59′ 14.757″ E
181	52° 48′	1° 39′	421	53° 10′	2° 59′
182	39.560" N 52° 48'	26.596" E 1° 39'	422	45.017" N 53° 10'	14.089" E 2° 59'
183	39.405" N 52° 48'	27.124" E 1° 39'	423	45.302" N 53° 10'	13.389" E 2° 59'
184	39.261" N 52° 48'	27.661" E 1° 39'	424	45.561" N 53° 10'	12.661" E 2° 59'
185	38.783" N 52° 48'	29.512" E 1° 39'		45.792" N 53° 10'	11.908" E 2° 59'
186	38.649" N 52° 48'	30.055" E 1° 39'	425	45.993" N 53° 10'	11.132″ Е 2° 59′
187	38.525" N 52° 48'	30.606" E 1° 39'	426	46.166" N 53° 10'	10.336" E 2° 59' 9.524"
	38.044" N	32.861" E	427	46.307" N	E
188	52° 48′ 37.927″ N	1° 39′ 33.484″ E	428	53° 10′ 46.418″ N	2° 59′ 8.699″ E
189	52° 48′ 37.569″ N	1° 39′ 35.557″ E	429	53° 10′ 46.498″ N	2° 59′ 7.864″ E
190	52° 48′ 37.477″ N	1° 39′ 36.124″ E	430	53° 10′ 46.545″ N	2° 59′ 7.022″ E
191	52° 48′ 37.396″ N	1° 39′ 36.696″ E	431	53° 10′ 46.561″ N	2° 59′ 6.176″ E
192	52° 48′ 37.137″ N	1° 39′ 38.662″ E	432	53° 10′ 46.545″ N	2° 59′ 5.331″ E
193	52° 48′ 37.067″ N	1° 39′ 39.237″ E	433	53° 10′ 46.498″ N	2° 59′ 4.489″ E
194	52° 48′ 37.008″ N	1° 39′ 39.816″ E	434	53° 10′ 46.418″ N	2° 59′ 3.654″ E
195	52° 48′ 36.824″ N	1° 39′ 41.805″ E	435	53° 10′ 46.307″ N	2° 59′ 2.829″
196	52° 48′	1° 39′	436	53° 10′	E 2° 59' 2.017"
197	36.776" N 52° 48'	42.387" E 1° 39'	437	46.166" N 53° 10'	E 2° 59′ 1.221″
198	36.739" N 52° 48'	42.971" E 1° 39'	438	45.993" N 53° 10'	E 2° 59′ 0.445″
199	36.617" N 52° 48'	45.198" E 1° 39'	120	45.792" N 53° 10'	E 2° 58′
200	36.608" N 52° 48'	45.442" E 1° 39'	439	45.561" N 53° 10'	59.691" E 2° 58'
210	36.111″ N	58.227″ E	440	45.302" N	2° 58' 2° 58'
	52° 47′ 53.162″ N	1° 57′ 17.842″ E	441	53° 10′ 45.017″ N	58.264" E
202	52° 47′ 51.688″ N	1° 57′ 48.405″ E	442	53° 10′ 44.705″ N	2° 58′ 57.596″ E
203	52° 47′ 50.436″ N	1° 58′ 0.642″ E	443	53° 10′ 44.369″ N	2° 58′ 56.962″ E

204	52° 47′ 48.214″ N	1° 58′ 12.320″ E	444	53° 10′ 44.010″ N	2° 58′ 56.364″ E
205	52° 47′	1° 58′	445	53° 10′	2° 58′
	42.495" N	33.820″ E	443	43.629″ N	55.804" E
206	52° 47′	1° 58′	446	53° 10′	2° 58′
	36.793" N	49.157″ E	110	43.228" N	55.286″ E
207	52° 47′	1° 59′ 7.719″	447	53° 10′	2° 58′
208	27.713" N	E		42.807" N	54.811" E
208	52° 47′ 19.963″ N	1° 59′ 19.409″ E	448	53° 10′ 42.370″ N	2° 58′ 54.380″ E
209	52° 47′	1° 59′		53° 10′	2° 58′
209	10.581" N	30.409" E	449	41.918" N	53.997" E
210	52° 45′	2° 1′ 51.874″	150	53° 10′	2° 58′
	3.401″ N	E	450	41.451″ N	53.661" E
211	52° 45′	2° 1′ 52.189″	451	53° 10′	2° 58′
	3.127" N	E	451	40.973″ N	53.374″ E
212	52° 45′	2° 1′ 53.183″	452	53° 10′	2° 58′
	2.287" N	Е	452	40.485″ N	53.139″ E
213	52° 45′	2° 1′ 53.925″	453	53° 10′	2° 58′
	1.635" N	E		39.990" N	52.954" E
214	52° 45′ 1 251″ N	2° 1′ 54.277″	454	53° 10'	2° 58′ 52 822″ E
215	1.351" N	E		39.488" N	52.822" E
215	52° 45′ 0.388″ N	2° 1′ 55.510″ E	455	53° 10′ 38.982″ N	2° 58′ 52.742″ E
216	52° 45'	2° 1′ 55.877″		53° 10′	2° 58′
210	0.110" N	E	456	38.474" N	2 58 52.716″ E
217	52° 44′	2° 1′ 56.258″		53° 10′	2° 58′
	59.840" N	E	457	37.966" N	52.742" E
218	52° 44′	2° 1′ 57.587″	450	53° 10′	2° 58′
	58.926" N	Е	458	37.461" N	52.822″ E
219	52° 44′	2° 1′ 57.982″	459	53° 10′	2° 58′
	58.663" N	Е	-137	36.959" N	52.954" E
220	52° 44′	2° 1′ 58.390″	460	53° 10′	2° 58′
- 221	58.407" N	E		36.463" N	53.139" E
221	52° 44′ 57.545″ N	2° 1′ 59.812″ E	461	53° 10′ 35.975″ N	2° 58′ 53.375″ E
222	52° 44′	L		53° 10′	2° 58′
	52 44 57.298" N	2° 2′ 0.233″ E	462	35.497" N	2 58 53.661" E
223	52° 44′	2 2 0.233 1		53° 10′	2° 58′
	57.059" N	2° 2′ 0.667″ E	463	35.031" N	53.997" E
224	52° 44′		161	53° 10′	2° 58′
	56.253" N	2° 2′ 2.175″ E	464	34.578" N	54.381" E
225	52° 44′		465	53° 10′	2° 58′
	56.022" N	2° 2′ 2.621″ E	403	34.141" N	54.812" E
226	52° 44′		466	53° 10′	2° 58′
	55.800" N	2° 2′ 3.078″ E	100	33.721" N	55.287" E
227	52° 44′		467	53° 10′	2° 58′
220	55.053" N	2° 2′ 4.667″ E		33.319" N	55.805" E
228	52° 44′ 54.839″ N	2° 2′ 5.136″ E	468	53° 10′ 32.938″ N	2° 58′ 56.364″ E
229	54.839" IN 52° 44'	2 2 3.130 E		53° 10'	2° 58′
<u> 44</u>]	52° 44′ 54.635″ N	2° 2′ 5.615″ E	469	33° 10' 32.579" N	2° 58' 56.962" E
230	2 11000 11	0.010 L		02.077 11	

	52° 44′ 53.950″ N	2° 2′ 7.278″ E	470	53° 10′ 32.243″ N	2° 58′ 57.597″ E
231	52° 44′ 53.755″ N	2° 2′ 7.768″ E	471	53° 10′ 31.932″ N	2° 58′ 58.265″ E
232	52° 44′ 53.569″ N	2° 2′ 8.268″ E	472	53° 10′ 31.646″ N	2° 58′ 58.964″ E
233	52° 44′ 52.949″ N	2° 2′ 9.998″ E	473	53° 10′ 31.388″ N	2° 58′ 59.692″ E
234	52° 44′ 52.773″ N	2° 2′ 10.507″ E	474	53° 10′ 31.157″ N	2° 59′ 0.445″ E
235	52° 44′ 52.607″ N	2° 2′ 11.025″ E	475	53° 10′ 30.955″ N	2° 59′ 1.221″ E
236	52° 44′ 52.053″ N	2° 2′ 12.816″ E	476	53° 10′ 30.783″ N	2° 59′ 2.017″ E
237	52° 44′ 51.897″ N	2° 2′ 13.343″ E	477	53° 10′ 30.641″ N	2° 59′ 2.829″ E
238	52° 44′ 51.751″ N	2° 2′ 13.877″ E	478	53° 10′ 30.531″ N	2° 59′ 3.654″ E
239	52° 44′ 51.267″ N	2° 2′ 15.722″ E	479	53° 10′ 30.451″ N	2° 59′ 4.489″ E
240	52° 44′ 51.131″ N	2° 2′ 16.263″ E			

PART 3

Details of Licensed Marine Activities

1. Subject to the licence conditions at Part 4, this licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea of the substances and articles specified in paragraph 5 of Part 2 of this licence;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation;
- (d) the disposal of up to a total of 7,275,000 m³ of inert material of natural origin within the offshore Order limits produced during construction drilling or seabed preparation for foundation works and cable (including fibre optic cable) sandwave preparation works at disposal site references HU213, HU214, and HU217 within the extent of the Order limits seaward of MHWS, comprising—
 - (i) 3,600,000 m³ for cable (including fibre optic cable)installation;
 - (ii) 75,000 m³ for the offshore electrical platforms;
 - (iii) 3,100,000 m³ for the export cables (including fibre optic cables) within the Order limits excluding the Haisborough, Hammond and Winterton Special Area of Conservation;
 - (iv) 500,000 m³ for the export cables (including fibre optic cables) within the part of the Haisborough, Hammond and Winterton Special Area of Conservation that falls within the Order limits;
- (e) the removal of static fishing equipment; and
- (f) the disposal of drill arisings in connection with any foundation drilling up to a total of $14,137 \text{ m}^3$.

2.—(1) Such activities are authorised in relation to the construction, maintenance and operation of (in the event of scenario 1 and scenario 2 unless otherwise stated below)—

(2) Work No. 2 (phase 2) – up to two offshore electrical platforms fixed to the seabed within the area shown on the works plan by one of the following foundation types: jacket (piled or suction caisson) or gravity base.

(3) Work No. 3A (phase 2) – a network of subsea cables and fibre optic cables within the area shown on the works plan comprising Work No. 2 and for the transmission of electricity and electronic communications between the offshore electrical platforms including one or more cable crossings.

(4) *Work No. 4A (phase 2)* – up to four subsea export cables and fibre optic cables between Work No. 2 and Work No. 4B consisting of subsea cables and fibre optic cables along routes within the Order limits seaward of MHWS including one or more offshore cable crossings.

(5) *Work No. 4B (phase 2)* – up to four subsea export cables and fibre optic cables between Work No. 4A and Work No. 4C consisting of subsea cables and fibre optic cables along routes within the Order limits between MLWS and MHWS at Happisburgh South, North Norfolk.

(6) In connection with such Work Nos. 2, 3A, 4A and 4B and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence.

(7) In connection with such Work Nos. 2, 3A, 4A and 4B, ancillary works within the Order limits which have been subject to an environmental impact assessment recorded in the environmental statement comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction and/ or maintenance of the authorised scheme; and
- (b) beacons, fenders and other navigational warning or ship impact protection works.

PART 4

Conditions

Design parameters

1.—(1) The dimensions of any offshore electrical platform forming part of the authorised scheme (excluding towers, helipads, masts and cranes) must not exceed 100 metres in height when measured from HAT, 120 metres in length and 80 metres in width.

(2) In relation to an offshore electrical platform, each foundation using piles must not have—

- (a) more than 18 driven piles;
- (b) a pile diameter which is more than five metres; or
- (c) in relation to an offshore electrical platform, foundations with a combined seabed footprint area (excluding scour protection) of greater than 15,000 m².

2. The total length of the cables and the area and volume of their cable protection must not exceed the individual distributions set out in Table 2 of the outline scour protection and cable protection plan and must not exceed the following—

Work	Length	<i>Cable protection</i> (m^3)	<i>Cable protection</i> (m^2)
Work No. 3A	90 kilometres	17,000 m ³	34,000 m ²
(Interconnector link) Work No. 4A and 4B	500 kilometres	69,236m ³	124,086m ²
(export cable)		,	,

Phasing of the authorised scheme

3.—(1) Taken together with works authorised and proposed to be constructed pursuant to licence 1 (transmission)—

- (a) the total number of offshore electrical platforms forming part of the authorised scheme must not exceed two;
- (b) the total amount of scour protection for the offshore electrical platforms forming part of the authorised scheme must not exceed 20,000m² and 100,000 m³ and must not exceed the distributed quantities of scour protection set out in Table 1 of the outline scour protection and cable protection plan;
- (c) the total amount of inert material of natural origin disposed within the offshore Order limits as part of the authorised scheme must not exceed 7,275,000m³;
- (d) the total amount of disposal for drill arisings in connection with any foundation drilling must not exceed 14,137m³;
- (e) the total length of cable and the amount of cable protection must not exceed the figures stated in condition 2 of this licence;
- (f) in the Haisborough, Hammond and Winterton Special Area of Conservation, the total area of cable protection must not exceed 24,000m² and the total volume of cable protection must not exceed 13,600m³; and
- (g) in the Haisborough, Hammond and Winterton Special Area of Conservation, cable protection must not take the form of rock or gravel dumping where it is deployed to protect export cables apart from at cable crossing locations with existing cables and pipelines.

(2) Prior to the commencement of the authorised scheme where the authorised scheme will be constructed in two offshore phases (under licence 1 (transmission) and this licence) the undertaker must give notice to the MMO detailing the total number of offshore electrical platforms to be constructed in this phase under this licence.

(3) In the event of scenario 1, the undertaker may commence either Work No. 3A or Work No. 3B and, for the avoidance of doubt, must not commence both of Work No. 3A and Work No. 3B.

Notifications and inspections

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

- (a) a copy of this licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 12; and
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 12;
- (b) within 28 days of receipt of a copy of this licence those persons referred to in paragraph(a) above must provide a completed confirmation form to the MMO confirming receipt of

this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 12 are permitted to carry out the licensed activities.

(3) Copies of this licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
- (c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.

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

(5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Coastal Office in writing at least five days prior to the commencement of the licensed activities or any part of them, and within five days of completion of the licensed activities.

(7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details regarding the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—

- (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
- (b) as soon as reasonably practicable and no later than 24 hours of completion of construction of all offshore activities;

and confirmation of notification must be provided to the MMO within five days.

(8) A notice to mariners must be issued at least ten days prior to the commencement of the licensed activities or any part of them advising of the start date of Work No. 2 and the expected vessel routes from the construction ports to the relevant location. A second notice to mariners must be issued advising of the start date of Work Nos. 3A, 4A and 4B and the route of the sub-sea cables and fibre optic cables. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(9) The notices to mariners must be updated and reissued at weekly intervals during construction activities and at least five days before any planned operations and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under condition 9(1)(b). Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(10) The undertaker must notify the UK Hydrographic Office both of the commencement (ten days prior), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days.

(11) In case of damage to, or destruction or decay of the authorised scheme seaward of MHWS or any part thereof, the undertaker must as soon as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify MMO, MCA, Trinity House, the Kingfisher Information Service of Seafish, and the UK Hydrographic Office.

(12) In case of exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners by issuing a notice to mariners and by informing Kingfisher Information Service of the location and extent of exposure. Copies of all notices must be provided to the MMO and MCA within five days.

Aids to navigation

5.—(1) The undertaker must during the whole period from commencement of the licensed

activities to completion of decommissioning seaward of MHWS exhibit such lights, marks, sounds, signals and other aids to navigation, and to take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

(2) The undertaker must during the period from the start of construction of the authorised scheme to completion of decommissioning seaward of MHWS keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MHWS including the following—

- (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 five days of completion of construction of the authorised scheme.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation as set out in the aids to navigation management plan agreed pursuant to condition 9(1)(k) using the reporting system provided by Trinity House.

(4) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS notify Trinity House and the MMO of any failure of the aids to navigation and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 4(11) and condition 4(12) are invoked, the undertaker must lay down such marker buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Colouring of structures

6.—(1) Except as otherwise required by Trinity House the undertaker must colour all structures forming part of the authorised scheme yellow (colour code RAL 1023) from at least HAT to a height directed by Trinity House, or must colour the structure as directed by Trinity House from time to time.

(2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs, the undertaker must paint the remainder of the structures submarine grey (colour code RAL 7035).

Chemicals, drilling and debris

7.—(1) Unless otherwise agreed in writing by the MMO all chemicals used in the construction of the authorised scheme must be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002¹² (as amended).

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

(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 inform the MMO of the location and quantities of material disposed of each month under this licence. This information must be submitted to the MMO by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive. In the event that no activity has taken place during the reporting period the undertaker must provide a null (0) return to the MMO.

(5) The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within disposal site references HU213, HU214, and HU217 within the extent of the Order limits seaward of MHWS. Any other materials must be screened out before disposal of the inert material at this site.

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

¹² S.I. 2002/1355.

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

(8) The undertaker must undertake the survey agreed under condition 9(1)(h)(iii) following the swath-bathymetry survey referred to in condition 15(2)(b). Should any such obstructions resulting from burial of Work No. 4A or 4B (export cables and fibre optic cables) be identified which, in the reasonable opinion of the MMO, may be considered to interfere with fishing, the undertaker must take such steps to remove them as the MMO in its reasonable opinion may require.

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

(10) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 9(1)(d)(i).

(11) All dropped objects must be reported to the MMO using the Dropped Object Procedure Form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of the Dropped Object Procedure Form, the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so.

Force majeure

8.—(1) If, due to stress of weather or any other cause the master of a vessel determines that it is necessary to make a deposit which is not authorised under this licence, whether within or outside of the Order limits because the safety of human life and/or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

(2) The unauthorised deposits must be removed at the expense of the undertaker unless written approval is obtained from the MMO.

Pre-construction plans and documentation

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

- (a) A design plan at a scale of between 1:25,000 and 1:50,000 including detailed representation on the most suitably scaled admiralty chart, to be agreed in writing with the MMO in consultation with Trinity House and the MCA which shows, in accordance with the Development Principles—
 - (i) the proposed location and choice of foundation of all offshore electrical platforms;
 - (ii) the height, length and width of all offshore electrical platforms;

- (iii) the length and arrangement of all cables (including fibre optic cables) comprising Work Nos. 3A, 4A and 4B;
- (iv) the dimensions of all foundations;
- (v) the proposed layout of all offshore electrical platforms including any exclusion zones identified under sub-paragraph (1)(h)(iv);
- (vi) a plan showing the indicative layout of all offshore electrical platforms including all exclusion zones (insofar as not shown in (v) above) and showing the indicative programming of particular works as set out in the indicative programme to be provided under sub-paragraph (1)(b)(iv); and
- (vii) any exclusion zones/micrositing requirements identified in any mitigation scheme pursuant to sub-paragraph (1)(i);

to ensure conformity with the description of Works No. 2, 3A, 4A and 4B and compliance with conditions 1 to 3 above.

- (b) A construction programme and monitoring plan (which accords with the offshore in principle monitoring plan) to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant delivery of materials and installation works;
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with sub-paragraph (1)(h) and conditions 12, 13, 14 and 15; and
 - (iv) an indicative written construction programme for all offshore electrical platforms and cables including fibre optic cables comprised in the works at Part 3 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above);

with details pursuant to paragraph (iii) above to be submitted to the MMO in accordance with the following—

- (aa) at least four months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
- (bb) at least four months prior to construction, detail on construction monitoring; and
- (cc) at least four months prior to commissioning, detail of post-construction (and operational) monitoring;

unless otherwise agreed in writing with the MMO.

- (c) A construction method statement in accordance with the construction methods assessed in the environmental statement and including details of—
 - (i) foundation installation methodology, including drilling methods and disposal of drill arisings and material extracted during seabed preparation for foundation works and having regard to any mitigation scheme pursuant to sub-paragraph (1)(i);
 - (ii) soft start procedures with specified duration periods;
 - (iii) offshore electrical platform location and installation, including scour protection;
 - (iv) cable (including fibre optic cable) installation;
 - (v) contractors;
 - (vi) vessels, vessels maintenance and vessel transit corridors; and
 - (vii) associated and ancillary works.
- (d) A project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation 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 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;
- (iv) the appointment and responsibilities of a fisheries liaison officer; and
- (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of commencement of licensed activities pursuant to condition 4 and to address the interaction of the licensed activities with fishing activities;
- (e) A scour protection and cable protection plan (in accordance with the outline scour protection and cable protection plan) providing details of the need, type, sources, quantity, distribution and installation methods for scour protection and cable (including fibre optic cable) protection. For the avoidance of doubt "distribution" in this sub- paragraph must include quantities in respect of each structure comprised in the offshore works and intended to be subject to scour protection.
- (f) In the event that piled foundations are proposed to be used, at least six months prior to commencement of licensed activities, a marine mammal mitigation protocol, in accordance with the draft marine mammal mitigation protocol, the intention of which is to prevent injury to marine mammals and following current best practice as advised by the relevant statutory nature conservation bodies.
- (g) A cable specification, installation and monitoring plan, for the installation and protection of cables outside of the Haisborough, Hammond and Winterton Special Area of Conservation, to include—
 - (i) technical specification of offshore cables (including fibre optic cable) below MHWS, 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 detailed cable (including fibre optic cable) laying plan for the Order limits, incorporating a burial risk assessment, encompassing the identification of any cable protection that exceeds 5% of navigable depth referenced to chart datum and, in the event that any area of cable protection exceeding 5% of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House) to be taken to ensure existing and future safe navigation is not compromised or such similar assessment to ascertain suitable burial depths and cable laying techniques, including cable landfall and cable protection measures;
 - (iii) proposals for monitoring offshore cables including cable (including fibre optic cable) protection during the operational lifetime of the authorised scheme which includes a risk based approach to the management of unburied or shallow buried cables; and
 - (iv) appropriate methods such as a trawl or drift net to be deployed along Work No. 4A and 4B (export cables and fibre optic cables), following the survey referred to in condition 15(2)(b) to assess any seabed obstructions resulting from burial of the export cables and fibre optic cables.
- (h) An archaeological written scheme of investigation in relation to the offshore Order limits seaward of mean high water, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body (and, if relevant, North Norfolk District Council) to include—
 - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
 - (v) monitoring of archaeological exclusion zones during and post construction;
 - (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS (Online Access to the Index of archaeological

investigations) form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO (and North Norfolk District Council where the report relates to the intertidal area) that the OASIS form has been submitted to the National Record of the Historic Environment within two weeks of submission;

- (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and
- (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order Limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities.
- (i) A mitigation scheme for any habitats of principal importance identified by the survey referred to in condition 13(2)(a) and in accordance with the offshore in principle monitoring plan.
- (j) An offshore operations and maintenance plan, in accordance with the outline offshore operations and maintenance plan, to be submitted to the MMO at least four months prior to commencement of operation of the licensed activities and to provide for review and resubmission every three years during the operational phase.
- (k) An aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, to include details of how the undertaker will comply with the provisions of condition 5 for the lifetime of the authorised scheme.
- (1) In the event that piled foundations are proposed to be used, at least six months prior to commencement of licensed activities, a site integrity plan which accords with the principles set out in the in principle Norfolk Boreas Southern North Sea Special Area of Conservation Site Integrity Plan, and which the MMO is satisfied would provide such mitigation as is necessary to avoid adversely affecting the integrity (within the meaning of the 2017 Regulations) of a relevant site, to the extent that harbour porpoise are a protected feature of that site.
- (m) At least six months prior to commencement of licensed activities, a cable specification, installation and monitoring plan for the installation and protection of cables within the Haisborough, Hammond and Winterton Special Area of Conservation which accords with the principles set out in the outline Norfolk Boreas Haisborough, Hammond and Winterton Special Area of Conservation Cable Specification, Installation and Monitoring Plan such plan to be submitted to the MMO (in consultation with the relevant statutory nature conservation body).

(2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific written scheme of investigation which is itself in accordance with the details set out in the outline offshore written scheme of investigation (offshore), and which has been submitted to and approved by the MMO.

(3) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive the pile foundations must not exceed—

- (a) 5,000kJ in respect of monopile foundations; and
- (b) 2,700kJ in respect of pin piles.

10.—(1) Any archaeological reports produced in accordance with condition 9(1)(h)(iii) must be agreed with the MMO in consultation with the statutory historic body (and, if relevant, North Norfolk District Council).

(2) The design plan required by condition 9(1)(a) must be prepared by the undertaker and determined by the MMO in accordance with the Development Principles.

(3) Each programme, statement, plan, protocol or scheme required to be approved under condition 9 must be submitted for approval at least four months prior to the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(4) No licensed activity may commence until for that licensed activity the MMO has approved in writing any relevant programme, statement, plan, protocol or scheme required to be approved under condition 9.

(5) Unless otherwise agreed in writing with the undertaker, the MMO must use reasonable endeavours to determine an application for approval made under condition 9 as soon as practicable and in any event within a period of four months commencing on the date the application is received by the MMO.

(6) The licensed activities must be carried out in accordance with the plans, protocols, statements, schemes and details approved under condition 9, unless otherwise agreed in writing by the MMO.

(7) No part of the authorised scheme may commence until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed MCA recommendations as appropriate to the authorised scheme contained within MGN543 "Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues" and its annexes.

Post-construction plans and documents

11. The undertaker must conduct a swath bathymetric survey to IHO S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out and provide the data and survey report(s) to the MMO, MCA and UKHO.

Reporting of engaged agents, contractors and vessels

12.—(1) The undertaker must provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO in writing prior to the agent, contractor or vessel engaging in the licensed activities.

Pre-construction monitoring and surveys

13.—(1) The undertaker must, in discharging condition 9(1)(b), submit details (which accord with the offshore in principle monitoring plan) for written approval by the MMO in consultation with the relevant statutory bodies of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report; and—

- (a) the survey proposals 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 and/or will enable the validation or otherwise of key predictions in the environmental statement; and
- (b) 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 preconstruction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

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

- (a) undertake appropriate surveys to determine the location and extent of any benthic communities/benthos constituting Annex 1 reef habitats of principal importance in whole or in part inside the area(s) within the Order limits in which it is proposed to carry out construction works;
- (b) undertake a full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works; and
- (c) undertake or contribute to any marine mammal monitoring referred to in the in principle monitoring plan submitted in accordance with condition 9(1)(b).

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

conservation bodies.

Construction monitoring

14.—(1) The undertaker must, in discharging condition 9(1)(b), submit details (which accord with the offshore in principle monitoring plan) for approval by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives. In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.

(2) The undertaker must carry out the surveys approved under sub-paragraph (1), including any further noise monitoring required in writing by the MMO, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.

(3) The results of the initial noise measurements monitored in accordance with sub-paragraph (1) must be provided to the MMO within six weeks of the installation of the first four piled foundations of each piled foundation type. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the opinion of the MMO in consultation with the relevant statutory nature conservation body, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have been agreed.

(4) In the event that driven or part driven pile foundations are proposed to be used, the details submitted in accordance with the offshore in principle monitoring plan must include proposals for monitoring marine mammals.

Post construction

15.—(1) The undertaker must, in discharging condition 9(1)(b), submit details (which accord with the offshore in principle monitoring plan) for approval by the MMO in consultation with relevant statutory bodies of proposed post-construction surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals 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 and/or will enable the validation or otherwise of key predictions in the environmental statement.

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

- (a) undertake an appropriate survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance constituting Annex 1 reef habitats identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey;
- (b) undertake within twelve months of completion of the licensed activities, one full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables including fibre optic cables have been buried or protected; and
- (c) undertake or contribute to any marine mammal monitoring referred to in the in principle monitoring plan submitted in accordance with condition 9(1)(b).

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

(4) Following installation of cables, the cable (including fibre optic cables) monitoring plan required under condition 9(1)(g)(iii) must be updated with the results of the post installation surveys.

The plan must be implemented during the operational lifetime of the authorised scheme and reviewed as specified within the plan, following cable burial surveys, or as instructed by the MMO.

Reporting of impact pile driving

16.—(1) Only when driven or part-driven pile foundations are proposed to be used as part of the foundation installation the undertaker must provide the following information to the UK Marine Noise Registry—

- (a) prior to the commencement of the licenced activities, information on the expected location, start and end dates of impact pile driving to satisfy the Marine Noise Registry's Forward Look requirements;
- (b) at six month intervals following the commencement of pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements; and
- (c) within 12 weeks of completion of impact pile driving, information on the locations and dates of impact pile driving to satisfy the Marine Noise Registry's Close Out requirements.

(2) The undertaker must notify the MMO of the successful submission of Forward Look or Close Out data pursuant to paragraph (1) above within 7 days of the submission.

(3) For the purpose of this condition—

"Marine Noise Registry" means the database developed and maintained by JNCC on behalf of Defra to record the spatial and temporal distribution of impulsive noise generating activities in UK seas; and

"Forward Look" and "Close Out" requirements are as set out in the UK Marine Noise Registry Information Document Version 1 (July 2015) or any updated information document.

Reporting of scour and cable protection

17.—(1) Not more than 4 months following completion of the construction phase of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection and scour protection used for the authorised scheme.

(2) The report must include the following information—

- (a) Location of the cable protection and scour protection;
- (b) volume of cable protection and scour protection; and
- (c) any other information relating to the cable protection as agreed between the MMO and the undertaker.

Coordination with Norfolk Vanguard Offshore Wind Farm

18.—(1) Prior to submission of each of the pre-construction plans and documentation required to be submitted under condition 9(1) above the undertaker must provide a copy of the relevant plans and documentation to the undertaker of the offshore element of the Norfolk Vanguard Offshore Wind Farm to enable that undertaker to provide any comments on the plans and documentation.

(2) The undertaker must participate in liaison meetings with the undertaker of the offshore element of the Norfolk Vanguard Offshore Wind Farm as requested from time to time by the MMO in writing in advance, which meeting will be chaired by the MMO and may consider such matters as are determined by the MMO relating to the efficient operation of the offshore element of the authorised project and the offshore element of the Norfolk Vanguard Offshore Wind Farm.

Restriction on cable installation construction works

19. During the months of January to March inclusive, construction activities consisting of cable installation for Work No. 4A and Work No. 4B must only take place with one main cable laying vessel.

SCHEDULE 13

Deemed Licence under the 2009 Act –Project Interconnector assets (Scenario 1)

PART 1

Interpretation

1.—(1) In this licence—

"the 2004 Act" means the Energy Act 2004;

"the 2008 Act" means the Planning Act 2008;

"the 2009 Act" means the Marine and Coastal Access Act 2009;

"the 2011 Regulations" means the Marine Licensing (Licence Application Appeals) Regulations 2011¹³;

"the 2017 Regulations" means the Conservation of Offshore Marine Habitats and Species Regulations 2017¹⁴;

"offshore service platform" means a platform to house workers offshore and/or provide refuelling facilities and sheltering facilities for helicopters;

"authorised deposits" means the substances and articles specified in paragraph 5 of Part 2 of this licence;

"authorised scheme" means Work No. 3B described in Part 3 of this licence or any part of that work;

"cable protection" means measures for offshore cable crossings and where cable burial is not possible due to ground conditions or approaching offshore structures, to protect cables and fibre optic cables and prevent loss of seabed sediment by use of grout bags, protective aprons, mattresses, flow energy dissipation (frond) devices or rock and gravel dumping;

"commence" means the first carrying out of any part of the licensed activities save for preconstruction surveys and monitoring and "commenced" and "commencement" must be construed accordingly;

"condition" means a condition in Part 4 of this licence;

"Defence Infrastructure Organisation Safeguarding" means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands B75 7RL and any successor body to its functions;

"Development Principles" means the document certified as the Development Principles 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 Part 4 (marine licensing) of the 2009 Act;

"environmental statement" means the document certified as the environmental statement by the Secretary of State for the purposes of this Order;

"Kingfisher Fortnightly Bulletin" means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO for the purposes of this licence;

"licensed activities" means the activities specified in Part 3 of this licence;

"maintain" includes inspect, upkeep, repair, adjust, and alter and further includes remove, reconstruct and replace (but only in relation to any of the ancillary works in Part 2 of Schedule 1 (ancillary works), any cable, and any component part of any wind turbine generator, offshore electrical substation, offshore service platform or meteorological mast described in Part 1 of Schedule 1 (authorised development) not including the alteration, removal or replacement of foundations), to the extent assessed in the environmental statement; and "maintenance" is

¹³ S.I. 2011/934.

¹⁴ S.I. 2017/1013

construed accordingly;

"Marine Management Organisation" or "MMO" means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence;

"marker buoy" means any floating device used for marker or navigation purposes, including LIDAR buoys and wave buoys;

"MCA" means the Maritime and Coastguard Agency;

"mean high water springs" or "MHWS" means the highest level which spring tides reach on average over a period of time;

"Norfolk Boreas Offshore Wind Farm" means the offshore wind farm authorised pursuant to the Order

"Norfolk Vanguard Offshore Wind Farm" means the offshore wind farm for which Norfolk Vanguard Limited has sought a development consent order pursuant to an application submitted to the Secretary of State on 26th June 2018;

"notice to mariners" means a notice issued by the undertaker to mariners to inform them of issues that affect the safety of navigation;

"offshore cables" means any cables offshore;

"offshore in principle monitoring plan" means the document certified as the offshore in principle monitoring plan by the Secretary of State for the purposes of this Order;

"offshore Order limits" means the limits shown on the works plan within which the authorised scheme may be carried out, whose grid coordinates are set out in Part 2 of this licence;

"offshore service platform" means a platform to house workers offshore and/or provide refuelling facilities and sheltering facilities for helicopters;

"the Order" means the Norfolk Boreas Offshore Wind Farm Order 2021;

"outline fisheries liaison and co-existence plan" means the document certified as the outline fisheries liaison and co-existence plan by the Secretary of State for the purposes of this Order;

"outline offshore operations and maintenance plan" means the document certified as the outline offshore operations and maintenance plan by the Secretary of State for the purposes of the Order;

"outline written scheme of investigation (offshore)" means the document certified as the outline written scheme of investigation (offshore) by the Secretary of State for the purposes of this Order;

"relevant site" means a European offshore marine site or a European site as defined in the 2017 Regulations;

"scenario 1" means the scenario in which the Norfolk Vanguard Offshore Wind Farm proceeds to construction and carries out enabling works, including the laying of onshore cable ducts, to benefit the Norfolk Boreas Offshore Wind Farm;

"scour protection" means measures to prevent loss of seabed sediment around any marine structure placed in or on the seabed by use of protective aprons, mattresses with or without frond devices, or rock and gravel placement.

"single offshore phase" means carrying out all offshore works as a single construction operation;

"statutory historic body" means Historic Buildings and Monuments Commission for England (Historic England) or its successor in function;

"statutory nature conservation body" means an organisation charged by government with advising on nature conservation matters;

"Trinity House" means the Corporation of Trinity House of Deptford Strond;

"UK Hydrographic Office" means the UK Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

"undertaker" means Norfolk Boreas Limited (Company No. 03722058) whose registered office is at 5th Floor, 70 St Mary Axe, London EC3A 8BE;

"vessel" means every description of vessel, however propelled or moved, and includes a nondisplacement 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;

"work No. 3A" means a network of subsea cables and fibre optic cables within the area shown on the works plan comprising Work No. 2 and for the transmission of electricity and electronic communications between the offshore electrical platforms including one or more cable crossings, licensed under schedule 11 and schedule 12 of this Order;

"works plan" means the plan certified as the works plan by the Secretary of State for the purposes of the Order.

2. A reference to any statute, order, regulation or similar instrument is construed as 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. Unless otherwise indicated—

- (a) all times are taken to be Greenwich Mean Time (GMT); and
- (b) all co-ordinates are taken to be latitude and longitude degrees and minutes to two decimal places.

4. Except where otherwise notified in writing by the relevant organisation, the primary points of contact with the organisations listed below and the addresses for returns and correspondence are—

(a) Marine Management Organisation

Marine Licensing Lancaster House Hampshire Court Newcastle Business Park Newcastle upon Tyne NE4 7YH Tel: _____;

(b) Marine Management Organisation (local office)

Lowestoft Office Pakefield Road Lowestoft Suffolk NR33 0HT Tel:

- (c) Trinity House Tower Hill LondonEC3N 4DH Tel:
- (d) The United Kingdom Hydrographic Office Admiralty Way Taunton Somerset TA1 2DN Tel: _____;
- (e) Maritime and Coastguard Agency Navigation Safety Branch

Bay 2/20, Spring Place 105 Commercial Road Southampton SO15 1EG Tel: _____;

(f) Centre for Environment, Fisheries and Aquaculture Science
 Pakefield Road
 Lowestoft
 Suffolk
 NR33 0HT

Tel:

(g) Natural England Area 1C, Nobel House 17 Smith Square London SW1P 2AL Tel:

(h) Historic England
 Cannon Bridge House
 25 Dowgate Hill
 London
 EC4R 2YA
 Tel:

PART 2

Licensed Marine Activities – General

1. This licence remains in force until the authorised scheme has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108 (reviews and revisions of decommissioning programmes), and the completion of such programme has been confirmed by the Secretary of State in writing.

2. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence only apply to a transfer not falling within article 6 (benefit of the Order).

3. With respect to any condition which requires the licensed activities be carried out in accordance with the plans, protocols or statements approved under this Schedule, the approved details, plan or scheme are taken to include any amendments that may subsequently be approved in writing by the MMO.

4. Any amendments to or variations from the approved plans, protocols or statements must be minor or immaterial and it must be demonstrated to the satisfaction of the MMO that they are unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

5. The substances or articles authorised for deposit at sea are—

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

6. The grid coordinates for the authorised scheme are specified below—

Point	Latitude (DMS)	Longitude (DMS)	Point	Latitude (DMS)	Longitude (DMS)
1	53° 14′ 28.789″ N	3° 3′ 31.257″ E	147	52° 53′ 29.821″ N	2° 44′ 35.547″ E
2	52° 56′ 14.962″ N	3° 8′ 41.012″ E	148	52° 53′ 31.210″ N	2° 44′ 36.888″ E
3	52° 54′ 27.033″ N	2° 58′ 15.457″ E	149	52° 53′ 32.585″ N	2° 44′ 38.265″ E
4	52° 54′ 11.424″ N	2° 58′ 22.820″ E	150	52° 53′ 33.947″ N	2° 44′ 39.679″ E
5	52° 53′ 56.239″ N	2° 58′ 29.982″ E	151	52° 53′ 35.295″ N	2° 44′ 41.128″ E
6	52° 49′ 50.103″ N	2° 56′ 54.167″ E	152	52° 53′ 36.630″ N	2° 44′ 42.613″ E
7	52° 48′ 9.945″ N	2° 51′ 14.086″ E	153	52° 53′ 37.949″ N	2° 44′ 44.133″ E
8	52° 47′ 34.455″ N	2° 46′ 27.112″ E	154	52° 53′ 39.254″ N	2° 44′ 45.687″ E
9	52° 47′ 27.871″ N	2° 45′ 34.063″ E	155	52° 53′ 40.543″ N	2° 44′ 47.276″ E
10	52° 47′ 16.559″ N	2° 44′ 3.046″ E	156	52° 53′ 41.818″ N	2° 44′ 48.898″ E
11	52° 47′ 15.589″ N	2° 43′ 55.247″ E	157	52° 53′ 43.076″ N	2° 44′ 50.554″ E
12	52° 47′ 15.589″ N	2° 43′ 55.243″ E	158	52° 53′ 44.318″ N	2° 44′ 52.243″ E
13	52° 47′ 14.341″ N	2° 43′ 45.216″ E	159	52° 53′ 45.543″ N	2° 44′ 53.965″ E
14	52° 47′ 13.615″ N	2° 43′ 39.381″ E	160	52° 53′ 46.752″ N	2° 44′ 55.719″ E
15	52° 46′ 3.346″ N	2° 34′ 18.016″ E	161	52° 53′ 47.944″ N	2° 44′ 57.504″ E
16	52° 47′ 9.359″ N	2° 34′ 17.247″ E	162	52° 53′ 49.118″ N	2° 44′ 59.321″ E
17	52° 47′ 25.496″ N	2° 34′ 17.365″ E	163	52° 53′ 50.275″ N	2° 45′ 1.169″ E
18	52° 49′ 38.834″ N	2° 34′ 15.809″ E	164	52° 53′ 51.414″ N	2° 45′ 3.046″ E
19	52° 48′ 47.472″ N	2° 33′ 28.343″ E	165	52° 53′ 52.534″ N	2° 45′ 4.954″ E
20	52° 48′ 3.133″ N	2° 26′ 37.427″ E	166	52° 53′ 53.636″ N	2° 45′ 6.891″ E
21	52° 50′ 8.137″ N	2° 24′ 33.205″ E	167	52° 53′ 54.719″ N	2° 45′ 8.857″ E
22	52° 50′ 8.399″ N	2° 24′ 32.945″ E	168	52° 53′ 55.783″ N	2° 45′ 10.851″ E
23	52° 50′ 8.619″ N	2° 24′ 32.726″ E	169	52° 53′ 56.827″ N	2° 45′ 12.874″ E
24	52° 50′ 9.644″ N	2° 24′ 31.706″ E	170	52° 53′ 57.852″ N	2° 45′ 14.923″ E
25	9.644″ N 52° 50′	31.706" E 2° 24'	171	57.852" N 52° 53'	14.923" E 2° 45'

	19.691″ N	21.712″ E		58.857" N	16.999" E
26	52° 50′	2° 24′	172	52° 53′	2° 45′
	19.704" N	21.712″ E		59.841" N	19.102" E
27	52° 50′	2° 24′	173	52° 54′	2° 45′
	19.798″ N	21.712″ E		0.806" N	21.230" E
28	52° 53′	2° 24′	174	52° 54′	2° 45′
	42.801" N	21.744″ E	1,1	1.749″ N	23.384" E
29	52° 53′	2° 24′	175	52° 54′	2° 45′
_>	42.811" N	21.744″ E	1,0	2.672″ N	25.562" E
30	52° 54′	2° 34′	176	52° 54′	2° 45′
	35.314" N	15.972″ E		3.573″ N	27.765″ E
31	52° 51′	2° 34′	177	52° 54′	2° 45′
01	3.549" N	15.852″ E	1,,	4.453" N	29.990" E
32	52° 51′	2° 34′	178	52° 54′	2° 45′
	3.549″ N	15.864" E		5.312″ N	32.239" E
33	52° 51′	2° 34′	179	52° 54′	2° 45′
	3.486″ N	19.188″ E		6.144″ N	34.497" E
34	52° 51′	2° 34′	180	53° 3′	2° 45′
0.	3.295″ N	22.530" E	100	46.017" N	35.676" E
35	52° 51′	2° 34′	181	53° 8′	2° 48′
	2.978" N	25.846" E	101	27.770" N	38.429" E
36	52° 51′	2° 34′	182	53° 13′	
20	2.535" N	29.122″ E	102	52.532" N	3° 2′ 3.556″ E
37	52° 51′	2° 34′	183	53° 13′	
51	1.968″ N	32.346" E	105	53.967" N	3° 2′ 7.131″ E
38	52° 51′	2° 34′	184	53° 13′	3° 2′ 21.440″
50	1.280″ N	35.504" E	101	59.710" N	E
39	52° 51′	2° 34′	185	53° 14′	3° 2′ 43.249″
57	0.473″ N	38.585″ E	105	8.462″ N	E
40	52° 50′	2° 34′	186	53° 14′	3° 3′ 12.673″
10	59.551" N	41.577" E	100	21.060" N	E
41	52° 50′	2° 34′	187	53° 10′	2° 59′ 5.331″
71	58.516" N	44.466" E	107	30.403" N	E
42	52° 50′	2° 34′	188	53° 10′	2° 59′ 6.176″
12	57.374" N	47.243" E	100	30.387" N	E
43	52° 50′	2° 34′	189	53° 10′	2° 59′ 7.022″
15	56.129" N	49.896" E	10)	30.403" N	E
44	52° 50′	2° 34′	190	53° 10′	2° 59′ 7.863″
	54.785″ N	52.414″ E	170	30.451" N	E
45	52° 50′	2° 34′	191	53° 10′	2° 59' 8.699"
15	53.348" N	54.788" E	171	30.531" N	E
46	52° 50′	2° 34′	192	53° 10′	2° 59′ 9.524″
10	51.823" N	57.008" E	172	30.641" N	E
47	52° 50′	2° 34′	193	53° 10′	2° 59′
17	50.218" N	59.065" E	175	30.783" N	10.336" E
48	52° 50′	2° 35′ 0.952″	194	53° 10′	2° 59′
10	48.537" N	E	171	30.955" N	11.131″ E
49	52° 50′	2° 35′ 2.661″	195	53° 10′	2° 59′
r7	46.788" N	E	175	31.157" N	11.907" E
50	52° 50′	2° 35′ 4.185″	196	53° 10′	2° 59′
	44.977" N	E		31.388" N	12.661" E
51	52° 50′	2° 35′ 5.518″	197	53° 10′	2° 59′

	43.112″ N	Е		31.646″ N	13.389″ E
52	52° 50′ 41.200″ N	2° 35′ 6.655″ E	198	53° 10′ 31.932″ N	2° 59′ 14.088″ E
	41.200 N 52° 50'	2° 35′ 7.591″		53° 10′	14.088 E 2° 59'
53	32 30 39.248" N	2 33 7.391 E	199	32.243" N	2 59 14.756" E
	52° 50'	2° 35′ 8.323″		53° 10′	2° 59′
54	32 50 37.265" N	2 33 8.323 E	200	32.579" N	2 59 15.390" E
	52° 50'	2° 35′ 9.346″		53° 10′	19.590 E 2° 59'
55	32.920" N	2 33 9.340 E	201	32.938" N	2 59 15.988" E
	52° 50'	2° 35' 9.316"		53° 10′	19.900 E 2° 59'
56	2.151" N	E 2 55 7.510	202	33.319" N	16.548" E
	52° 49′	2° 35′ 9.346″		53° 10′	2° 59′
57	58.941" N	E 55 7.5 10	203	33.721" N	17.066″ E
	52° 49′			53° 10′	2° 59′
58	6.921" N	E	204	34.141" N	17.541″ E
-	52° 48′	2° 35′ 9.996″	2 0 7	53° 10′	2° 59′
59	50.491″ N	E	205	34.578" N	17.972" E
<u>()</u>	52° 48′	2° 35′	207	53° 10′	2° 59′
60	34.062" N	10.152" E	206	35.031" N	18.356" E
61	52° 47′	2° 35′	207	53° 10′	2° 59′
01	39.858" N	10.667" E	207	35.497" N	18.692" E
62	52° 47′	2° 35′	208	53° 10′	2° 59′
02	38.680" N	10.728" E	208	35.975" N	18.978" E
63	52° 47′	2° 35′	209	53° 10′	2° 59′
05	37.466" N	10.917" E	207	36.463" N	19.214" E
64	52° 47′	2° 35′	210	53° 10′	2° 59′
01	36.261" N	11.231″ E	210	36.959" N	19.398" E
65	52° 47′	2° 35′	211	53° 10′	2° 59′
	35.071" N	11.670″ E		37.461" N	19.531" E
66	52° 47′	2° 35′	212	53° 10′	2° 59′
	33.900" N	12.231" E		37.966" N	19.610" E
67	52° 47′ 32.753″ N	2° 35′ 12.912″ E	213	53° 10'	2° 59' 10 627" E
				38.474" N	19.637" E 2° 59'
68	52° 47′ 31.634″ N	2° 35′ 13.711″ E	214	53° 10′ 38.982″ N	2 59 19.610" E
	52° 47′	2° 35′		53° 10'	19.010 E 2° 59'
69	30.547" N	2 33 14.624″ E	215	39.488" N	2 59 19.531" E
	52° 47′	2° 35′		53° 10′	2° 59′
70	29.498" N	2-55 15.647″ Е	216	39.990" N	19.399" E
	52° 47′	2° 35′		53° 10′	2° 59′
71	28.489" N	16.778″ E	217	40.485″ N	19.214″ E
70	52° 47′	2° 35′	210	53° 10′	2° 59′
72	27.525" N	18.010" E	218	40.973" N	18.978" E
73	52° 47′	2° 35′	219	53° 10′	2° 59′
15	26.611" N	19.340" E	219	41.451" N	18.692" E
74	52° 47′	2° 35′	220	53° 10′	2° 59′
/4	25.748" N	20.762" E	220	41.918" N	18.356" E
75	52° 47′	2° 35′	221	53° 10′	2° 59′
15	24.942" N	22.271" E		42.370" N	17.972" E
76	52° 47′	2° 35′	222	53° 10′	2° 59′
	24.194" N	23.860" E		42.807" N	17.542″ E
77	52° 47′	2° 35′	223	53° 10′	2° 59′

	23.509" N	25.523" E		43.228" N	17.067" E
78	52° 47′	2° 35′	224	53° 10′	2° 59′
/0	22.888" N	27.254" E	221	43.629" N	16.548" E
79	52° 47′	2° 35′	225	53° 10′	2° 59′
17	22.334" N	29.046" E	223	44.010" N	15.989" E
80	52° 47′	2° 35′	226	53° 10′	2° 59′
00	21.849" N	30.892" E	220	44.369" N	15.391" E
81	52° 47′	2° 35′	227	53° 10′	2° 59′
01	21.436" N	32.784″ E	221	44.705" N	14.757" E
82	52° 47′	2° 35′	228	53° 10′	2° 59′
02	21.096" N	34.716″ E	220	45.017" N	14.089" E
83	52° 47′	2° 35′	229	53° 10′	2° 59′
05	20.829" N	36.679" E		45.302" N	13.389" E
84	52° 47′	2° 35′	230	53° 10′	2° 59′
01	20.638" N	38.665″ E	230	45.561" N	12.661" E
85	52° 47′	2° 35′	231	53° 10′	2° 59′
05	20.523" N	40.667" E	231	45.792" N	11.908" E
86	52° 47′	2° 35′	232	53° 10′	2° 59′
00	20.485" N	42.678″ E	252	45.993" N	11.132″ E
87	52° 47′	2° 35′	233	53° 10′	2° 59′
07	20.523" N	44.688″ E	235	46.166" N	10.336" E
88	52° 47′	2° 35′	234	53° 10′	2° 59′ 9.524″
00	20.637" N	46.691" E	234	46.307" N	E
89	52° 47′	2° 35′	235	53° 10′	2° 59′ 8.699″
07	20.744" N	47.803" E	233	46.418″ N	E
90	52° 47′	2° 35′	236	53° 10′	2° 59′ 7.864″
20	20.744" N	47.804" E	230	46.498" N	E
91	52° 47′	2° 35′	237	53° 10′	2° 59′ 7.022″
<i>)</i> 1	21.786" N	56.101" E	231	46.545" N	E
92	52° 48′	2° 43′	238	53° 10′	2° 59′ 6.176″
/=	16.490" N	13.626″ E	230	46.561" N	E
93	52° 48′	2° 43′	239	53° 10′	2° 59′ 5.331″
20	20.763" N	47.964" E	237	46.545" N	E
94	52° 48′	2° 43′	240	53° 10′	2° 59′ 4.489″
<i>.</i>	21.026" N	49.928" E	210	46.498" N	E
95	52° 48′	2° 43′	241	53° 10′	2° 59′ 3.654″
,,,	21.364" N	51.862" E		46.418" N	E
96	52° 48′	2° 43′	242	53° 10′	2° 59′ 2.829″
20	21.774" N	53.756" E		46.307" N	E
97	52° 48′	2° 43′	243	53° 10′	2° 59′ 2.017″
	22.256" N	55.605″ E	2.0	46.166" N	E
98	52° 48′	2° 43′	244	53° 10′	2° 59′ 1.221″
20	22.808" N	57.400" E		45.993" N	Е
99	52° 48′	2° 43′	245	53° 10′	2° 59′ 0.445″
	23.426" N	59.134" E		45.792" N	E
100	52° 48′	2° 44′ 0.801″	246	53° 10′	2° 58′
	24.109" N	E		45.561" N	59.691" E
101	52° 48′	2° 44′ 2.393″	247	53° 10′	2° 58′
	24.854" N	E		45.302" N	58.964" E
102	52° 48′	2° 44′ 3.905″	248	53° 10′	2° 58′
	25.659" N	E		45.017" N	58.264" E
103	52° 48′	2° 44′ 5.331″	249	53° 10′	2° 58′

Е	274
	275
	106

	26.519″ N	E		44.705″ N	57.596″ E
	52° 48′	2° 44' 6.665"		53° 10′	2° 58′
104	27.432" N	E 2 44 0.005	250	44.369" N	2 96 56.962" E
	52° 48′	2° 44′ 7.902″		53° 10′	2° 58′
105	28.394" N	E	251	44.010" N	56.364" E
100	52° 48′	2° 44′ 9.037″	252	53° 10′	2° 58′
106	29.401" N	Е	252	43.629" N	55.804" E
107	52° 48′	2° 44′	253	53° 10′	2° 58′
107	30.449" N	10.065" E	233	43.228" N	55.286" E
108	52° 48′	2° 44′	254	53° 10′	2° 58′
100	31.534" N	10.983" E	234	42.807" N	54.811" E
109	52° 48′	2° 44′	255	53° 10′	2° 58′
107	32.652" N	11.786″ E	255	42.370" N	54.380" E
110	52° 48′	2° 44′	256	53° 10′	2° 58′
	33.799" N	12.472″ E		41.918″ N	53.997" E
111	52° 48′	2° 44′	257	53° 10′	2° 58′
	34.969" N	13.037" E		41.451" N	53.661″ E
112	52° 48′	2° 44′	258	53° 10′	2° 58′
	36.158" N	13.481" E		40.973" N	53.374" E
113	52° 48′ 37.362″ N	2° 44′ 13.800″ E	259	53° 10′ 40.485″ N	2° 58′ 53.139″ E
	52° 48′	13.800 E 2° 44′		40.485 IN 53° 10′	2° 58′
114	32 48 38.576" N	2 44 13.994" E	260	39.990" N	2 38 52.954" E
	52° 48′	13.994 L 2° 44′		53° 10′	2° 58′
115	39.226" N	2 44 14.030" E	261	39.488″ N	2 38 52.822" E
	52° 48′	2° 44′		53° 10′	2° 58'
116	39.637" N	14.030" E	262	38.982" N	2-30 52.742″ Е
	52° 51′	2° 44′		53° 10′	2° 58′
117	27.631" N	14.043″ E	263	38.474″ N	52.716″ E
110	52° 52′	2° 44′	264	53° 10′	2° 58′
118	45.444″ N	14.140" E	264	37.966" N	52.742″ E
110	52° 52′	2° 44′	265	53° 10′	2° 58′
119	48.722" N	14.144″ E	265	37.461" N	52.822" E
120	52° 52′	2° 44′	266	53° 10′	2° 58′
120	48.725" N	14.157" E	200	36.959" N	52.954" E
121	52° 52′	2° 44′	267	53° 10′	2° 58′
121	50.325" N	14.415″ E	207	36.463" N	53.139" E
122	52° 52′	2° 44′	268	53° 10′	2° 58′
	51.923" N	14.716″ E	-00	35.975" N	53.375" E
123	52° 52′	2° 44′	269	53° 10′	2° 58′
-	53.518" N	15.059" E		35.497" N	53.661" E
124	52° 52′	2° 44′	270	53° 10′	2° 58′
	55.109" N	15.444" E		35.031" N	53.997" E
125	52° 52'	2° 44′	271	53° 10′	2° 58′ 54 281″ E
	56.696" N	15.871" E		34.578" N	54.381" E
126	52° 52′ 58.279″ N	2° 44′ 16.340″ E	272	53° 10′ 34.141″ N	2° 58′ 54.812″ E
	52° 52'	10.340 E 2° 44′		53° 10'	2° 58′
127	52° 52' 59.857" N	2° 44' 16.851" E	273	53° 10' 33.721" N	2° 58' 55.287" E
	59.857 IN 52° 53'	10.831 E 2° 44'		53° 10′	33.287 Е 2° 58′
128	52 55 1.430" N	2 44 17.403″ E	274	33.319" N	2 38 55.805" E
129	52° 53'	2° 44′	275	53° 10′	2° 58′
/	52 55	2	213	23 10	2 30

	2.998" N	17.996" E		32.938" N	56.364" E
130	52° 53′	2° 44′	276	53° 10′	2° 58′
150	4.559" N	18.631″ E	276	32.579" N	56.962" E
131	52° 53′	2° 44′	277	53° 10′	2° 58′
151	6.115″ N	19.307" E	211	32.243″ N	57.597" E
132	52° 53′	2° 44′	278	53° 10′	2° 58′
132	7.663″ N	20.024" E	278	31.932" N	58.265" E
133	52° 53′	2° 44′	279	53° 10′	2° 58′
155	9.205″ N	20.782" E	21)	31.646" N	58.964" E
134	52° 53′	2° 44′	280	53° 10′	2° 58′
134	10.739" N	21.580" E	200	31.388" N	59.692" E
135	52° 53′	2° 44′	281	53° 10′	2° 59′ 0.445″
155	12.265" N	22.419" E	201	31.157" N	E
136	52° 53′	2° 44′	282	53° 10′	2° 59′ 1.221″
100	13.782" N	23.298" E	202	30.955" N	E
137	52° 53′	2° 44′	283	53° 10′	2° 59′ 2.017″
107	15.291" N	24.217" E	205	30.783" N	E
138	52° 53′	2° 44′	284	53° 10′	2° 59′ 2.829″
	16.791" N	25.175" E		30.641" N	E
139	52° 53′	2° 44′	285	53° 10′	2° 59′ 3.654″
	18.282″ N	26.173" E		30.531" N	E
140	52° 53′	2° 44′ 286	286	53° 10′	2° 59′ 4.489″
	19.763″ N	27.211" E		30.451" N	E
141	52° 53′	2° 44′	287	52° 52′	2° 46′
	21.233" N	28.287" E		23.652" N	27.791" E
142	52° 53'	2° 44′	288	52° 51′	2° 46′
	22.693" N	29.402" E		50.970" N	27.714" E
143	52° 53'	2° 44′ 20 555″ F	289	52° 52′	2° 52′ 4.152″
	24.142" N	30.555" E		49.498" N	E
144	52° 53'	2° 44′ 21 747″ F	290	52° 53'	2° 51′ 57 002″ E
	25.580" N	31.747" E		4.385" N	57.093" E
145	52° 53'	2° 44′ 22 07 6″ E	291	52° 53′	2° 51′
	27.005" N	32.976" E		19.948" N	49.713" E
146	52° 53′ 28.419″ N	2° 44′ 34.243″ E			
	20.419 IN	34.243 E			

PART 3

Details of Licensed Marine Activities

1. Subject to the licence conditions at Part 4, this licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea of the substances and articles specified in paragraph 5 of Part 2 of this licence;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation; and
- (d) the disposal of up to a total of 7,200,000 m³ of inert material of natural origin within the offshore Order limits produced during construction drilling or seabed preparation for foundation works and cable (including fibre optic cable) sandwave preparation works at

disposal site references HU214, HU215, HU216, and HU217 within the extent of the Order limits seaward of MHWS.

2.—(1) Subject to condition 1, such activities are authorised in relation to the construction, maintenance and operation of—

(2) Work No. 3B – in the event of scenario 1, up to 3 project interconnector cables to connect Work No. 2 with the Norfolk Vanguard Offshore Wind Farm;

(3) In connection with such *Work No. 3B* and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence.

(4) In connection with such *Work No. 3B*, ancillary works within the Order limits which have been subject to an environmental impact assessment recorded in the environmental statement comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction and/ or maintenance of the authorised scheme; and
- (b) beacons, fenders and other navigational warning or ship impact protection works.

PART 4

Conditions

Effect of this licence

1.—(1) This licence takes effect in the event of scenario 1 only.

(2) The undertaker may only commence either Work No. 3B or Work No. 3A and, for the avoidance of doubt, must not commence both of Work No. 3B and Work No. 3A.

Design parameters

2. The total length of cables and volume of cable protection must not exceed the individual distributions set out in Table 2 of the outline scour protection and cable protection plan and must not exceed the following—

Work	Length	Cable protection (m^3)	Cable protection (m ²)
Work No. 3B (Project interconnection)	180 kilometres	41,000 m ³	74,000 m ²

Notifications and inspections

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

- (a) a copy of this licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 10; and
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 10;
- (b) within 28 days of receipt of a copy of this licence those persons referred to in paragraph(a) above must provide a completed confirmation form to the MMO confirming receipt of this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 10 are permitted to carry out the licensed activities.

(3) Copies of this licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the

authorised deposits; and

(c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.

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

(5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during construction and operation of the authorised scheme.

(6) The undertaker must inform the MMO Coastal Office in writing at least five days prior to the commencement of the licensed activities or any part of them, and within five days of completion of the licensed activities.

(7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details regarding the vessel routes, timings and locations relating to the construction of the authorised scheme or relevant part—

- (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
- (b) as soon as reasonably practicable and no later than 24 hours of completion of construction of all offshore activities;

and confirmation of notification must be provided to the MMO within five days.

(8) A notice to mariners must be issued at least ten days prior to the commencement of the licensed activities or any part of them advising of the start date of Work No. 3B and the expected vessel routes from the construction ports to the relevant location and the route of the sub-sea cables and fibre optic cables. Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(9) The notices to mariners must be updated and reissued at weekly intervals during construction activities and at least five days before any planned operations and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme approved under condition 7(1)(b). Copies of all notices must be provided to the MMO, MCA and UKHO within five days.

(10) The undertaker must notify the UK Hydrographic Office both of the commencement (ten days prior), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days.

(11) In case of damage to, or destruction or decay of, the authorised scheme seaward of MHWS or any part thereof, the undertaker must as reasonably practicable and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify MMO, MCA, Trinity House, the Kingfisher Information Service of Seafish, and the UK Hydrographic Office.

(12) In case of exposure of cables on or above the seabed, the undertaker must within three days following identification of a potential cable exposure, notify mariners by issuing a notice to mariners and by informing Kingfisher Information Service of the location and extent of exposure. Copies of all notices must be provided to the MMO and MCA within five days.

Aids to navigation

4.—(1) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS exhibit such lights, marks, sounds, signals and other aids to navigation, and to take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

(2) The undertaker must during the period from the start of construction of the authorised scheme to completion of decommissioning seaward of MHWS keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MHWS including the following—

(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 five days of completion of construction of the authorised scheme.

(3) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS notify Trinity House and the MMO of any failure of the aids to navigation and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(4) In the event that the provisions of condition 3(11) and condition 3(12) are invoked, the undertaker must lay down such marker buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

Chemicals, drilling and debris

5.—(1) Unless otherwise agreed in writing by the MMO all chemicals used in the construction of the authorised scheme must be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002¹⁵ (as amended).

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

(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 inform the MMO of the location and quantities of material disposed of each month under this licence. This information must be submitted to the MMO by 15 February each year for the months August to January inclusive, and by 15 August each year for the months February to July inclusive. In the event that no activity has taken place during the reporting period the undertaker must provide a null (0) return to the MMO.

(5) The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within disposal site references HU214, HU215, HU216, and HU217 within the extent of the Order limits seaward of MHWS. Any other materials must be screened out before disposal of the inert material at this site.

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

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

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

(9) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 7(1)(d)(i).

(10) All dropped objects must be reported to the MMO using the Dropped Object Procedure Form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of the Dropped Object Procedure Form, the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so.

¹⁵ S.I. 2002/1355.

Force majeure

6.—(1) If, due to stress of weather or any other cause the master of a vessel determines that it is necessary to make a deposit which is not authorised under this licence, whether within or outside of the Order limits because the safety of human life and/or of the vessel is threatened, within 48 hours the undertaker must notify full details of the circumstances of the deposit to the MMO.

(2) The unauthorised deposits must be removed at the expense of the undertaker unless written approval is obtained from the MMO.

Pre-construction plans and documentation

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

- (a) A design plan at a scale of between 1:25,000 and 1:50,000 including detailed representation on the most suitably scaled admiralty chart, to be agreed in writing with the MMO in consultation with Trinity House and the MCA which shows—
 - (i) the length and arrangement of all cables comprising Work No. 3B;
 - (ii) a plan showing the indicative programming of particular works as set out in the indicative programme to be provided under sub-paragraph (1)(b)(iv); and;
 - (iii) any exclusion zones/micrositing requirements identified in any mitigation scheme pursuant to sub-paragraph (1)(h);the dimensions of all foundations;

to ensure conformity with the description of Works No. 3B and compliance with condition 2 above.

- (b) A construction programme and monitoring plan (which accords with the offshore in principle monitoring plan) to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant delivery of materials and installation works;
 - (iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with sub-paragraph (1)(h) and conditions 11, 12 and 13; and
 - (iv) an indicative written construction programme for all offshore electrical platforms and cables including fibre optic cables comprised in the works at Part 3 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above);

with details pursuant to paragraph (iii) above to be submitted to the MMO in accordance with the following—

- (aa) at least four months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;
- (bb) at least four months prior to construction, detail on construction monitoring; and
- (cc) at least four months prior to commissioning, detail of post-construction (and operational) monitoring;

unless otherwise agreed in writing with the MMO.

- (c) A construction method statement in accordance with the construction methods assessed in the environmental statement and including details of—
 - (i) cable (including fibre optic cable) installation;
 - (ii) contractors;
 - (iii) vessels, vessels maintenance; and
 - (iv) associated and ancillary works.
- (d) A project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation 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 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;
- (iv) the appointment and responsibilities of a fisheries liaison officer; and
- (v) a fisheries liaison and coexistence plan (which accords with the outline fisheries liaison and co-existence plan) to ensure relevant fishing fleets are notified of commencement of licensed activities pursuant to condition 3 and to address the interaction of the licensed activities with fishing activities;
- (e) A scour protection and cable protection plan (in accordance with the outline scour protection and cable protection plan) providing details of the need, type, sources, quantity, distribution and installation methods for scour protection and cable (including fibre optic cable) protection. For the avoidance of doubt "distribution" in this sub- paragraph must include quantities in respect of each structure comprised in the offshore works and intended to be subject to scour protection.
- (f) A cable specification, installation and monitoring plan, to include-
 - (i) technical specification of offshore cables (including fibre optic cable) below MHWS, 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 detailed cable (including fibre optic cable) laying plan for the Order limits, incorporating a burial risk assessment, encompassing the identification of any cable protection that exceeds 5% of navigable depth referenced to chart datum and, in the event that any area of cable protection exceeding 5% of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House) to be taken to ensure existing and future safe navigation is not compromised or such similar assessment to ascertain suitable burial depths and cable laying techniques;
 - (iii) proposals for monitoring offshore cables including cable (including fibre optic cable) protection during the operational lifetime of the authorised scheme which includes a risk based approach to the management of unburied or shallow buried cables; and
 - (iv) appropriate methods such as a trawl or drift net to be deployed along Work No. 3B (project interconnector cables), following the survey referred to in condition 13(2)(b) to assess any seabed obstructions resulting from burial of the project interconnector cables.
- (g) An archaeological written scheme of investigation in relation to the offshore Order limits seaward of mean high water, which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body to include—
 - (i) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (ii) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (iii) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;
 - (iv) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones;
 - (v) monitoring of archaeological exclusion zones during and post construction;
 - (vi) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS (Online Access to the Index of archaeological investigations) form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO that the OASIS form has been submitted to the National Record of the Historic Environment within two

weeks of submission;

- (vii) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme; and
- (viii) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order Limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities.
- (h) A mitigation scheme for any habitats of principal importance identified by the survey referred to in condition 11(2)(a) and in accordance with the offshore in principle monitoring plan.
- (i) An offshore operations and maintenance plan, in accordance with the outline offshore operations and maintenance plan, to be submitted to the MMO at least four months prior to commencement of operation of the licensed activities and to provide for review and resubmission every three years during the operational phase.
- (j) An aids to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, to include details of how the undertaker will comply with the provisions of condition 4 for the lifetime of the authorised scheme.

(2) Pre-commencement surveys and archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific written scheme of investigation which is itself in accordance with the details set out in the outline offshore written scheme of investigation (offshore), and which has been submitted to and approved by the MMO.

8.—(1) Any archaeological reports produced in accordance with condition 7(1)(g)(iii) must be agreed with the MMO in consultation with the statutory historic body.

(2) The design plan required by condition 7(1)(a) must be prepared by the undertaker and determined by the MMO.

(3) Each programme, statement, plan, protocol or scheme required to be approved under condition 7 must be submitted for approval at least four months prior to the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(4) No licensed activity may commence until for that licensed activity the MMO has approved in writing any relevant programme, statement, plan, protocol or scheme required to be approved under condition 7.

(5) Unless otherwise agreed in writing with the undertaker, the MMO must use reasonable endeavours to determine an application for approval made under condition 7 as soon as practicable and in any event within a period of four months commencing on the date the application is received by the MMO.

(6) The licensed activities must be carried out in accordance with the plans, protocols, statements, schemes and details approved under condition 7, unless otherwise agreed in writing by the MMO.

(7) No part of the authorised scheme may commence until the MMO, in consultation with the MCA, has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that stage of the project, adequately addressed MCA recommendations as appropriate to the authorised scheme contained within MGN543 "Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues" and its annexes.

Post-construction plans and documents

9. The undertaker must conduct a swath bathymetric survey to IHO S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out and provide the data and survey report(s) to the MMO, MCA and UKHO.

Reporting of engaged agents, contractors and vessels

10.—(1) The undertaker must provide the following information to the MMO—

(a) the name and function of any agent or contractor appointed to engage in the licensed

activities within seven days of appointment; and

(b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO in writing prior to the agent, contractor or vessel engaging in the licensed activities.

Pre-construction monitoring and surveys

11.—(1) The undertaker must, in discharging condition 7(1)(b), submit details (which accord with the offshore in principle monitoring plan) for written approval by the MMO in consultation with the relevant statutory bodies of proposed pre-construction surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report; and—

- (a) the survey proposals 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 and/or will enable the validation or otherwise of key predictions in the environmental statement; and
- (b) 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 preconstruction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

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

- (a) appropriate surveys to determine the location and extent of any benthic communities/benthos constituting Annex 1 reef habitats of principal importance in whole or in part inside the area(s) within the Order limits in which it is proposed to carry out construction works; and
- (b) a full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works.

(3) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the baseline report to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation bodies.

Construction monitoring

12.—(1) The undertaker must, in discharging condition 7(1)(b), submit details (which accord with the offshore in principle monitoring plan) for approval by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives.

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

Post construction

13.—(1) The undertaker must, in discharging condition 7(1)(b), submit details (which accord with the offshore in principle monitoring plan) for approval by the MMO in consultation with relevant statutory bodies of proposed post-construction surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals 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 and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) The post-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed

with the MMO, have due regard to, but not be limited to, the need to undertake —

- (a) An appropriate survey to determine any change in the location, extent and composition of any benthic habitats of conservation, ecological and/or economic importance constituting Annex 1 reef habitats identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey.
- (b) within twelve months of completion of the licensed activities, one full sea floor coverage swath-bathymetry survey that meets the requirements of IHO S44ed5 Order 1a across the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables including fibre optic cables have been buried or protected.

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

(4) Following installation of cables, the cable (including fibre optic cables) monitoring plan required under condition 7(1)(f)(iii) must be updated with the results of the post installation surveys. The plan must be implemented during the operational lifetime of the authorised scheme and reviewed as specified within the plan, following cable burial surveys, or as instructed by the MMO.

Reporting of cable protection

14.—(1) Not more than 4 months following completion of the construction phase of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection used for the authorised scheme.

(2) The report must include the following information-

- (a) location of the cable protection;
- (b) volume of cable protection; and
- (c) any other information relating to the cable protection as agreed between the MMO and the undertaker.

Coordination with Norfolk Vanguard Offshore Wind Farm

15.—(1) Prior to submission of each of the pre-construction plans and documentation required to be submitted under condition 7(1) above the undertaker must provide a copy of the relevant plans and documentation to the undertaker of the offshore element of the Norfolk Vanguard Offshore Wind Farm to enable that undertaker to provide any comments on the plans and documentation.

(2) The undertaker must participate in liaison meetings with the undertaker of the offshore element of the Norfolk Vanguard Offshore Wind Farm as requested from time to time by the MMO in writing in advance, which meeting will be chaired by the MMO and may consider such matters as are determined by the MMO relating to the efficient operation of the offshore element of the authorised project and the offshore element of the Norfolk Vanguard Offshore Wind Farm.