#### 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 2011(1);

"the 2017 Regulations" means the Offshore Marine Habitats and Species Regulations 2017(2);

"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 pre-construction 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;

"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

1

<sup>(1)</sup> S.I. 2011/934.

<sup>(2)</sup> S.I. 2017/1013.

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

NE47YH

Tel: 0300 123 1032;

(b) Marine Management Organisation (local office)

Lowestoft Office

Pakefield Road

Lowestoft

Suffolk

NR33 0HT

Tel: 01502 573 149;

(c) Trinity House

Tower Hill

London

EC3N 4DH

Tel: 020 7481 6900;

(d) The United Kingdom Hydrographic Office

Admiralty Way

**Taunton** 

Somerset

TA12DN

Tel: 01823 337 900;

(e) Maritime and Coastguard Agency

Navigation Safety Branch

Bay 2/20, Spring Place

105 Commercial Road

Southampton

**SO15 1EG** 

Tel: 020 3817 2426;

(f) Centre for Environment, Fisheries and Aquaculture Science

Pakefield Road

Lowestoft

Suffolk

NR33 0HT

Tel: 01502 562 244;

(g) Natural England

Area 1C, Nobel House

17 Smith Square

London

SW1P 2AL

Tel: 0300 060 4911;

(h) Historic England

Cannon Bridge House

25 Dowgate Hill

London

EC4R 2YA

Tel: 020 7973 3700

# 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° 28.789″ N	14' 3° 3′ 31.257" I	<b>241</b>	52° 44 51.006″ N	2° 2′ 16.812″ E
2		3° 8′ 41.012″ 1		52° 44' 50.593" N	2° 2′ 18.703″ E
3	23.652" N			52° 44 50.478″ N	2° 2′ 19.257″ E
4	34.455" N			52° 44 50.373″ N	
5	52° 27.871″ N	47' 2° 45' 34.063 E	245	52° 44 50.034″ N	2° 2′ 21.747″ E
6	52° 16.559″ N	2° 44′ 3.046″ ]		52° 44' 49.940" N	
7	15.589" N			52° 44' 49.857" N	2° 2′ 22.883″ E
8	52° 15.589″ N	47' 2° 43' 55.243 E	" 248	52° 44' 49.592" N	
9	52° 14.341″ N	47' 2° 43' 45.216 E	" 249	52° 44' 49.520" N	2° 2′ 25.418″ E
10	52° 13.615″ N	47' 2° 43' 39.381 E	250	52° 44' 49.459" N	2° 2′ 25.996″ E

Point	(DMS)	Longitude (DMS)		Latitude (DMS)	
11	46.039" N			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	44.531" N			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			52° 44 48.989″ N	2° 2′ 34.021″ E
18	52° 42		250	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			52° 44 49.268″ N	' 2° 15′ 53.169″ E
22	52° 42 30.948″ N	2° 1′ 39.044″ E	262	52° 44 49.284" N	' 2° 15′ 53.754″ E
23	52° 42 30.701″ N	2° 1′ 34.686″ E	263	52° 44 49.311″ N	' 2° 15′ 54.339″ E
24	52° /2			52° 44 49.422″ N	' 2° 15′ 56.340″ E
25	52° 42 30.675″ N	2° 1′ 29.003″ E	265	52° 44 49.460″ N	' 2° 15′ 56.922″ E
26	52° 42 30.833″ N	2° 1′ 25.173″ E	266	52° 44 49.509″ N	' 2° 15′ 57.503″ E
27	52° 42 33.173″ N		267	52° 44 49.680″ N	' 2° 15′ 59.308″ E
28	52° 42 34.216″ N		268	52° 44 49.731″ N	' 2° 15′ 59.809″ E
29	52° 42 34.439″ N	2° 0′ 39.649″ E	269	52° 44 49.791″ N	2° 16′ 0.309″ E
30	52° 42 35.302″ N		270	52° 44 51.112″ N	' 2° 16′ 10.573″ E

Point		Longitude (DMS)	Point	Latitude (DMS)	
31	52° 42′ 41.649″ N		271		2° 16′ 10.573″ E
32	52° 42′ 43.788″ N	2° 0′ 0.073″ E	272		2° 23′ 47.080″ E
33	52° 42′ 44.149″ N	1° 59′ 59.016″ E	273	52° 45′ 49.557″ N	2° 23′ 47.097″ E
34	52° 42′ 45.445″ N	1° 59′ 55.557″ E	274	52° 46′ 11.399″ N	2° 26′ 38.781″ E
35	52° 42′ 55.437″ N	1° 59′ 30.877″ E	275	52° 46′ 11.399″ N	2° 26′ 38.782″ E
36	52° 42′ 55.855″ N	1° 59′ 29.924″ E	276	52° 46′ 58.179″ N	2° 32′ 48.486″ E
37		1° 59′ 24.593″ E	277	52° 46′ 59.273″ N	2° 32′ 57.168″ E
38	52° 42′ 58.842″ N	1° 59′ 23.685″ E	278	52° 47′ 4.976″ N	2° 33′ 42.433″ E
39	52° 43′ 0.673″ N	1° 59′ 20.588″ E	279	52° 47′ 5.398″ N	2° 33′ 45.780″ E
40	52° 43′ 2.861″ N	1° 59′ 17.394″ E	280	52° 47′ 6.366″ N	2° 33′ 53.472″ E
41	52° 43′ 17.859″ N	1° 58′ 57.179″ E	281	52° 47′ 6.366″ N	2° 33′ 53.473″ E
42	52° 43′ 19.625″ N	1° 58′ 54.953″ E	282	52° 47′ 20.744″ N	2° 35′ 47.803″ E
43	52° 43′ 21.284″ N	1° 58′ 53.106″ E	283	52° 47′ 20.744″ N	2° 35′ 47.804″ E
44	52° 43′ 21.796″ N	1° 58′ 52.576″ E	284	52° 47′ 21.786″ N	2° 35′ 56.101″ E
45	52° 43′ 23.547″ N	1° 58′ 50.895″ E	285	52° 48′ 16.490″ N	2° 43′ 13.626″ E
46	52° 45′ 46.103″ N	1° 56′ 43.184″ E	286	52° 48′ 20.763″ N	2° 43′ 47.964″ E
47	52° 46′ 2.160″ N	1° 56′ 27.260″ E	287	52° 48′ 21.026″ N	2° 43′ 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
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′ 33.566″	290	52° 48′	2° 43′ 55.605″

Point	(DMS)	Longitude (DMS)		Latitude (DMS)	(DMS)
51	51.513" N			52° 48′ 22.808″ N	2° 43′ 57.400″ E
52	52° 58.151″ N	46′ 1° 53′ 21.115″ E	292	52° 48′ 23.426″ N	2° 43′ 59.134″ E
53	52° 59.490″ N	46′ 1° 52′ 52.341″ E	293	52° 48′ 24.109″ N	2° 44′ 0.801″ E
54	52° 32.039″ N	47' 1° 39' 38.159" E	294	52° 48′ 24.854″ N	2° 44′ 2.393″ E
55	52° 32.129″ N	47′ 1° 39′ 36.152″ E	295	52° 48′ 25.659″ N	2° 44′ 3.905″ E
56	32.2/3" N			52° 48′ 26.519″ N	2° 44′ 5.331″ E
57	52° 32.388″ N	47′ 1° 39′ 31.565″ E	297	52° 48′ 27.432″ N	2° 44′ 6.665″ E
58	52° 32.521″ N	47′ 1° 39′ 29.607″ E	298	52° 48′ 28.394″ N	2° 44′ 7.902″ E
59	52° 32.673″ N	47′ 1° 39′ 27.652″ E	299	52° 48′ 29.401″ N	2° 44′ 9.037″ E
60	32.844" N			52° 48′ 30.449″ N	2° 44′ 10.065″ E
61	33.028" N			52° 48′ 31.534″ N	2° 44′ 10.983″ E
62	33.21/" N			52° 48′ 32.652″ N	2° 44′ 11.786″ E
63	33.425" N			52° 48′ 33.799″ N	2° 44′ 12.472″ E
64	33.652" N			52° 48′ 34.969″ N	2° 44′ 13.037″ E
65	52° 33.896″ N	47' 1° 39' 15.964" E	305	52° 48′ 36.158″ N	2° 44′ 13.481″ E
66	52° 34.155″ N	47' 1° 39' 13.999" E	306	52° 48′ 37.362″ N	2° 44′ 13.800″ E
67	52° 34.419″ N	47' 1° 39' 12.073" E	307		2° 44′ 13.994″ E
68	52° 34.701″ N	47' 1° 39' 10.153" E	308	52° 48′ 39.226″ N	2° 44′ 14.030″ E
69	52° 35.001″ N	47' 1° 39' 8.241" E	309		2° 44′ 14.030″ E
70	52° 35.320″ N	47′ 1° 39′ 6.337″ E	310	52° 51′ 27.631″ N	2° 44′ 14.043″ E

Point	Latitude (DMS)	Longitude (DMS)	Point	Latitude (DMS)	
71	52° /7'		311	52° 52′	2° 44′ 14.140″
72	52° 47'			52° 52′ 48.722″ N	2° 44′ 14.144″ E
73	52° 47′ 36.599″ N	1° 38′ 59.313″ E	313	52° 52′ 48.725″ N	2° 44′ 14.157″ E
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′ 37.906″ N	1° 38′ 53.193″ E	316	52° 52′ 53.518″ N	2° 44′ 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′ 1.602″ N	1° 33′ 25.973″ E	321	52° 53′ 1.430″ N	2° 44′ 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′ 4.845″ N	1° 32′ 52.212″ E	327	52° 53′ 10.739″ N	2° 44′ 21.580″ E
88	52° 49′ 5.188″ N	1° 32′ 51.467″ E	328	52° 53′ 12.265″ N	2° 44′ 22.419″ E
89	52° 49′ 6.147″ N	1° 32′ 49.575″ E	329		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

Point	(DMS)	Longitude (DMS)		Latitude (DMS)	(DMS)
91	N	1° 32′ 46.999″ E		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′ 8.663″ N	1° 32′ 42.319″ E	333	52° 53 19.763″ N	' 2° 44′ 27.211″ E
94	52° 49′ 8.910″ N	1° 32′ 41.417″ E	334	52° 53 21.233″ N	' 2° 44′ 28.287″ E
95	N	1° 32′ 41.019″ E	333	52° 53 22.693″ N	' 2° 44′ 29.402″ E
96	N			52° 53 24.142″ N	' 2° 44′ 30.555″ E
97	IN	1° 32′ 40.345″ E		52° 53 25.580″ N	' 2° 44′ 31.747″ E
98	N	1° 32′ 39.737″ E		52° 53 27.005″ N	' 2° 44′ 32.976″ E
99	N	1° 32′ 38.941″ E		52° 53 28.419″ N	' 2° 44′ 34.243″ E
100	10.086" N			52° 53 29.821″ N	' 2° 44′ 35.547″ E
101	10.218" IN			52° 53 31.210″ N	' 2° 44′ 36.888″ E
102	10.691" N			52° 53 32.585″ N	' 2° 44′ 38.265″ E
103	11.553" N			52° 53 33.947″ N	' 2° 44′ 39.679″ E
104	12.200" N			52° 53 35.295″ N	' 2° 44′ 41.128″ E
105	52° 49′ 12.742″ N	1° 32′ 32.736″ E	345	52° 53 36.630″ N	2° 44′ 42.613″ E
106	52° 49′ 13.080″ N	1° 32′ 31.922″ E	346	52° 53 37.949″ N	2° 44′ 44.133″ E
107	52° 49′ 13.507″ N	1° 32′ 31.040″ E	347	52° 53 39.254" N	' 2° 44′ 45.687″ E
108	52° 49′ 14.325″ N	1° 32′ 29.767″ E	348	52° 53 40.543″ N	' 2° 44′ 47.276″ E
109	52° 49′ 14.340″ N	1° 32′ 29.796″ E	349	52° 53 41.818″ N	' 2° 44′ 48.898″ E
110	52° 49′ 15.178″ N	1° 32′ 31.478″ E	350	52° 53 43.076″ N	' 2° 44′ 50.554″ E

Point	(DMS)	Longitude (DMS)		Latitude (DMS)	
111	52° 4 15.638″ N	49′ 1° 32′ 32.401″	351		2° 44′ 52.243″
112	52° 45.178″ N	49′ 1° 33′ 31.705″ E	352	52° 53′ 45.543″ N	2° 44′ 53.965″ E
113	52° 45.944″ N	49′ 1° 33′ 33.513″ E	353	52° 53′ 46.752″ N	2° 44′ 55.719″ E
114	52° 46.772″ N	49′ 1° 33′ 35.540″ E	354	52° 53′ 47.944″ N	2° 44′ 57.504″ E
115	52° 47.579" N	49′ 1° 33′ 37.591″ E	355	52° 53′ 49.118″ N	2° 44′ 59.321″ E
116	48.303" N			52° 53′ 50.275″ N	2° 45′ 1.169″ E
117	49.126" N			52° 53′ 51.414″ N	2° 45′ 3.046″ E
118	52° 49.866″ N	49′ 1° 33′ 43.878″ E	358	52° 53′ 52.534″ N	2° 45′ 4.954″ E
119	52° 50.585″ N	49′ 1° 33′ 46.016″ E	359	52° 53′ 53.636″ N	2° 45′ 6.891″ E
120	51.280° N			52° 53′ 54.719″ N	2° 45′ 8.857″ E
121	52° 51.952″ N	49′ 1° 33′ 50.354″ E	361	52° 53′ 55.783″ N	2° 45′ 10.851″ E
122	52° 52.602″ N	49′ 1° 33′ 52.551″ E	362	52° 53′ 56.827″ N	2° 45′ 12.874″ E
123	52° 53.228″ N	49′ 1° 33′ 54.767″ E	363	52° 53′ 57.852″ N	2° 45′ 14.923″ E
124	52° 4 53.831" N	49′ 1° 33′ 57.000″ E	364	52° 53′ 58.857″ N	2° 45′ 16.999″ E
125	52° 54.410″ N	49′ 1° 33′ 59.251″ E	365	52° 53′ 59.841″ N	2° 45′ 19.102″ E
126	52° 54.965" N	49′ 1° 34′ 1.518″ E	366	52° 54′ 0.806″ N	2° 45′ 21.230″ E
127	52°	49′ 1° 34′ 3.800″ E	267	52° 54′ 1.749″ N	2° 45′ 23.384″ E
128	52° 56.003″ N	49′ 1° 34′ 6.098″ E	368	52° 54′ 2.672″ N	2° 45′ 25.562″ E
129	52°	49′ 1° 34′ 8.409″ E	260	52° 54′ 3.573″ N	2° 45′ 27.765″ E
130	52° 4 56.944″ N	49′ 1° 34′ 10.735″ E	370	52° 54′ 4.453″ N	2° 45′ 29.990″ E

140       52° 50′ 0.154″ 1° 34′ 34.574″ 380       53° 30.403″ N       10′ 30.403″ N       2° 59′ 5.331         141       52° 50′ 0.336″ 1° 34′ 37.001″ 381       53° 10′ 30.387″ N       2° 59′ 6.176         142       52° 50′ 0.492″ 1° 34′ 39.433″ 382       53° 10′ 30.403″ N       2° 59′ 7.022         143       52° 50′ 0.623″ 1° 34′ 41.869″ 383       53° 10′ 30.451″ N       2° 59′ 7.863         144       52° 50′ 0.727″ 1° 34′ 44.308″ 384       53° 10′ 30.531″ N       2° 59′ 8.699         145       52° 50′ 0.806″ 1° 34′ 46.750″ 385       53° 30.641″ N       2° 59′ 9.524         146       52° 50′ 0.859″ 1° 34′ 49.193″ 386       53° 30.783″ N       10′ 2° 59′ 10.35         147       52° 50′ 0.887″ 1° 34′ 51.638″ 387       53° 30.955″ N       E         148       52° 50′ 0.888″ 1° 34′ 54.083″ 388       53° 30.955″ N       10′ 2° 59′ 11.15         149       52° 50′ 0.884″ 1° 34′ 56.528″ 389       53° 30.388″ N       10′ 2° 59′ 12.66         150       52° 50′ 0.814″ 1° 34′ 58.972″ 300       53° 10′ 2° 59′ 13.33	Point	(DMS)	Longitude (DMS)		Latitude (DMS)	Longitude (DMS)
133	131	52° 49′ 57.378″ N	1° 34′ 13.073″ E	371		
134	132	52° 49′ 57.786″ N	1° 34′ 15.423″ E	372		
135   52°   49′   1° 34′ 22.539″   375   53°   13′   52.532″ N   3° 2′ 3.556″   136   52°   49′   1° 34′ 24.930″   376   53.967″ N   3° 2′ 3.556″   137   59.173″ N   E   53.967″ N   3° 2′ 3.556″   137   59.456″ N   E   53.967″ N   3° 2′ 3.131″   137   52°   49′   1° 34′ 27.330″   377   53°   13′   59.456″ N   E   59.710″ N   3° 2′ 21.440   138   52°   49′   1° 34′ 29.738″   378   53° 14′ 8.462″   59.714″ N   E   53° 947″ N   E   53° 14′ 8.462″   3° 2′ 43.249   139   52°   49′   1° 34′ 32.153″   379   53°   14′ 8.462″   140   52° 50′ 0.154″   1° 34′ 34.574″   380   53°   10′ 2° 59′ 5.331   141   52° 50′ 0.336″   1° 34′ 37.001″   381   53°   10′ 2° 59′ 5.331   141   52° 50′ 0.492″   1° 34′ 34.9433″   382   53°   10′ 2° 59′ 50′ 0.492″   1° 34′ 34.384   30.403″ N   2° 59′ 6.176   142   52° 50′ 0.623″   1° 34′ 41.869″   383   53°   10′ 2° 59′ 7.022   143   52° 50′ 0.623″   1° 34′ 44.308″   384   53°   10′ 2° 59′ 7.863   144   52° 50′ 0.727″   1° 34′ 44.308″   384   53°   10′ 2° 59′ 8.699   145   52° 50′ 0.859″   1° 34′ 40.750″   385   53°   10′ 2° 59′ 8.699   145   52° 50′ 0.859″   1° 34′ 40.750″   385   53°   10′ 2° 59′ 9.524   146   52° 50′ 0.859″   1° 34′ 40.750″   385   53°   10′ 2° 59′ 10.31   147   52° 50′ 0.858″   1° 34′ 40.750″   388   53°   10′ 2° 59′ 10.31   148   52° 50′ 0.888″   1° 34′ 45.083″   388   53°   10′ 2° 59′ 11.11   148   52° 50′ 0.888″   1° 34′ 54.083″   388   53°   10′ 2° 59′ 11.11   148   52° 50′ 0.888″   1° 34′ 54.083″   388   53°   10′ 2° 59′ 11.11   148   52° 50′ 0.868″   1° 34′ 54.083″   388   53°   10′ 2° 59′ 11.11   149   52° 50′ 0.864″   1° 34′ 55.528″   389   53°   10′ 2° 59′ 11.26   11.50   52° 50′ 0.814″   1° 34′ 55.528″   389   53°   10′ 2° 59′ 13.33   150   2° 59′ 13.33   150   2° 59′ 13.33   150   2° 59′ 13.33   150   2° 59′ 10.814″   1° 34′ 58.972″   390   53°   10′ 2° 59′ 13.33   150   2° 59′ 13.33   150   2° 59′ 13.33   150   2° 59′ 13.33   150   2° 59′ 13.33   150   2° 59′ 13.33   150   2° 59′ 13.33   150′ 2° 59′ 13.33   150′ 2° 59′ 13.33   150′ 2° 59′ 13.33   150′ 2° 59′	133	52° 49′ 58.171″ N	1° 34′ 17.784″ E	373		
58.864" N       E       373       52.532" N       3° 2′ 3.556"         136       52°       49′ 1° 34′ 24.930"       376       53°       13′         59.173" N       E       53.967" N       3° 2′ 7.131"         137       52°       49′ 1° 34′ 27.330"       377       53°       13′         59.456" N       E       34′ 29.738"       378       53° 14′ 8.462"         138       52°       49′ 1° 34′ 32.153"       379       53° 14′ 8.462"         139       52°       49′ 1° 34′ 34.574"       380       53° 10′         140       52° 50′ 0.154" 1° 34′ 34.574"       380       53° 10′         140       52° 50′ 0.336" 1° 34′ 37.001"       381       53° 10′         141       52° 50′ 0.3492" 1° 34′ 34.574"       380       53° 10′         142       52° 50′ 0.492" 1° 34′ 34.39.433"       382       53° 10′         143       52° 50′ 0.623" 1° 34′ 44.869"       383       53° 10′         144       52° 50′ 0.623" 1° 34′ 44.308"       384       53° 10′         144       52° 50′ 0.859" 1° 34′ 44.308"       384       53° 10′         145       52° 50′ 0.859" 1° 34′ 44.308"       385       53° 10′         146       52° 50′ 0.859" 1° 34′ 44.308"	134	52° 49′ 58.530″ N	1° 34′ 20.157″ E	374		
137	135			375		
59.456" N E 577 59.710" N 3° 2′ 21.440  138 52° 49′ 1° 34′ 29.738" 378 53° 14′ 8.462"  N 3° 2′ 43.249  139 52° 49′ 1° 34′ 32.153" 379 53° 14′ 21.060" N 3° 3′ 12.673  140 52° 50′ 0.154" 1° 34′ 34.574" 380 53° 10′ 30.403" N 2° 59′ 5.331  141 52° 50′ 0.336" 1° 34′ 37.001" 381 53° 10′ 30.387" N 2° 59′ 5.331  142 52° 50′ 0.492" 1° 34′ 39.433" 382 53° 10′ 30.403" N 2° 59′ 7.022  143 52° 50′ 0.623" 1° 34′ 41.869" 383 53° 10′ 30.451" N 2° 59′ 7.022  144 52° 50′ 0.727" 1° 34′ 44.308" 384 53° 10′ 30.531" N 2° 59′ 8.699  145 52° 50′ 0.806" 1° 34′ 46.750" 385 53° 30.641" N 2° 59′ 9.524  146 52° 50′ 0.889" 1° 34′ 49.193" 386 53° 10′ 2° 59′ 10.330.783" N E  147 52° 50′ 0.888" 1° 34′ 51.638" 387 30.955" N E  148 52° 50′ 0.888" 1° 34′ 54.083" 388 53° 10′ 2° 59′ 11.93  31.157" N E  149 52° 50′ 0.864" 1° 34′ 56.528" 389 53° 10′ 2° 59′ 12.66 31.388" N E	136	52° 49′ 59.173″ N	1° 34′ 24.930″ E	376		
59.714" N       E       376       N       3° 2' 43.249         139       52° 49' 1° 34' 32.153" 379       53° 21.060" N       3° 3' 12.673         140       52° 50' 0.154" 1° 34' 34.574" 380       53° 30.403" N       2° 59' 5.331         141       52° 50' 0.336" 1° 34' 37.001" 381       53° 10' 30.387" N       2° 59' 5.331         142       52° 50' 0.492" 1° 34' 39.433" 382       53° 10' 30.403" N       2° 59' 7.022         143       52° 50' 0.623" 1° 34' 41.869" 383       53° 10' 30.451" N       2° 59' 7.863         144       52° 50' 0.727" 1° 34' 44.308" 384       53° 10' 30.451" N       2° 59' 8.699         145       52° 50' 0.806" 1° 34' 46.750" 385       53° 10' 30.641" N       2° 59' 9.524         146       52° 50' 0.887" 1° 34' 49.193" 386       53° 10' 2° 59' 10.33         147       52° 50' 0.887" 1° 34' 51.638" 387       53° 10' 2° 59' 11.11         148       52° 50' 0.888" 1° 34' 54.083" 388       53° 10' 2° 59' 11.91         149       52° 50' 0.864" 1° 34' 56.528" 389       53° 10' 2° 59' 13.3'         150       52° 50' 0.814" 1° 34' 58.972" 390       53° 10' 2° 59' 13.3'	137			377		
59.947" N       E       379       21.060" N       3° 3′ 12.673         140       52° 50′ 0.154" 1° 34′ 34.574" 380       53° 10′ 30.403" N       2° 59′ 5.331         141       52° 50′ 0.336" 1° 34′ 37.001" 381       53° 10′ 30.387" N       2° 59′ 6.176         142       52° 50′ 0.492" 1° 34′ 39.433" 382       53° 10′ 30.403" N       2° 59′ 7.022         143       52° 50′ 0.623" 1° 34′ 41.869" 383       53° 10′ 30.451" N       2° 59′ 7.863         144       52° 50′ 0.727" 1° 34′ 44.308" 384       53° 10′ 30.531" N       2° 59′ 8.699         145       52° 50′ 0.806" 1° 34′ 46.750" 385       53° 10′ 30.641" N       2° 59′ 9.524         146       52° 50′ 0.859" 1° 34′ 49.193" 386       53° 10′ 2° 59′ 10.31         N       E       30.783" N       E         147       52° 50′ 0.887" 1° 34′ 51.638" 387       53° 10′ 2° 59′ 11.11         N       E       31.157" N       E         149       52° 50′ 0.884" 1° 34′ 56.528" 389       53° 10′ 2° 59′ 12.66         N       E       31.388" N       E	138			378		
N E 360 30.403" N 2° 59′ 5.331  141 52° 50′ 0.336" 1° 34′ 37.001" 381 53° 10′ N E 30.387" N 2° 59′ 6.176  142 52° 50′ 0.492" 1° 34′ 39.433" 382 53° 10′ N E 30.403" N 2° 59′ 7.022  143 52° 50′ 0.623" 1° 34′ 41.869" 383 53° 10′ N E 30.451" N 2° 59′ 7.863  144 52° 50′ 0.727" 1° 34′ 44.308" 384 53° 10′ N E 30.531" N 2° 59′ 8.699  145 52° 50′ 0.806" 1° 34′ 46.750" 385 53° 10′ N E 30.641" N 2° 59′ 9.524  146 52° 50′ 0.859" 1° 34′ 49.193" 386 53° 10′ 2° 59′ 9.524  147 52° 50′ 0.887" 1° 34′ 49.193" 386 53° 10′ 2° 59′ 11.11 N E 30.955" N E 148  148 52° 50′ 0.888" 1° 34′ 54.083" 388 53° 10′ 2° 59′ 11.11 N E 30.955" N E 149  149 52° 50′ 0.864" 1° 34′ 56.528" 389 53° 10′ 2° 59′ 12.66 N E 53° 50′ 0.814" 1° 34′ 56.528" 389 53° 10′ 2° 59′ 12.66 N 52° 50′ 0.814" 1° 34′ 58.972" 300 53° 10′ 2° 59′ 13.33	139			379		3° 3′ 12.673″ E
N E 361 30.387" N 2° 59′ 6.176  142 52° 50′ 0.492" 1° 34′ 39.433" 382 53° 10′ 2° 59′ 7.022  143 52° 50′ 0.623" 1° 34′ 41.869" 383 53° 10′ 2° 59′ 7.863  144 52° 50′ 0.727" 1° 34′ 44.308" 384 53° 10′ 2° 59′ 8.699  145 52° 50′ 0.806" 1° 34′ 46.750" 385 53° 10′ 2° 59′ 9.524  146 52° 50′ 0.859" 1° 34′ 49.193" 386 53° 10′ 2° 59′ 9.524  147 52° 50′ 0.887" 1° 34′ 51.638" 387 53° 10′ 2° 59′ 11.11	140			380		2° 59′ 5.331″ E
N E 362 30.403" N 2° 59' 7.022  143 52° 50' 0.623" 1° 34' 41.869" 383 53° 10' N E 30.451" N 2° 59' 7.863  144 52° 50' 0.727" 1° 34' 44.308" 384 53° 10' N E 30.531" N 2° 59' 8.699  145 52° 50' 0.806" 1° 34' 46.750" 385 53° 10' N E 30.641" N 2° 59' 9.524  146 52° 50' 0.859" 1° 34' 49.193" 386 53° 10' 2° 59' 10.32 N E 30.783" N E  147 52° 50' 0.887" 1° 34' 51.638" 387 53° 10' 2° 59' 11.12 N E 30.955" N E  148 52° 50' 0.888" 1° 34' 54.083" 388 53° 10' 2° 59' 11.99 N E 31.157" N E  149 52° 50' 0.864" 1° 34' 56.528" 389 53° 10' 2° 59' 12.69 N E 52° 50' 0.814" 1° 34' 58.972" 390 53° 10' 2° 59' 13.33	141			381		2° 59′ 6.176″ E
144	142			382		2° 59′ 7.022″ E
145	143	52° 50′ 0.623″ N	1° 34′ 41.869″ E	383		2° 59′ 7.863″ E
146	144	52° 50′ 0.727″ N	1° 34′ 44.308″ E	384		2° 59′ 8.699″ E
N E 386 30.783" N E  147 52° 50′ 0.887" 1° 34′ 51.638" 387 53° 10′ 2° 59′ 11.13 N E 30.955" N E  148 52° 50′ 0.888" 1° 34′ 54.083" 388 53° 10′ 2° 59′ 11.90 N E 31.157" N E  149 52° 50′ 0.864" 1° 34′ 56.528" 389 53° 10′ 2° 59′ 12.60 N E 31.388" N E  150 52° 50′ 0.814" 1° 34′ 58.972" 390 53° 10′ 2° 59′ 13.33	145	52° 50′ 0.806″ N	1° 34′ 46.750″ E	385		2° 59′ 9.524″ E
N E 387 30.955" N E  148 52° 50′ 0.888" 1° 34′ 54.083" 388 53° 10′ 2° 59′ 11.90 N E 31.157" N E  149 52° 50′ 0.864" 1° 34′ 56.528" 389 53° 10′ 2° 59′ 12.60 N E 31.388" N E  150 52° 50′ 0.814" 1° 34′ 58.972" 390 53° 10′ 2° 59′ 13.33	146		_	386		
N E 388 31.157" N E  149 52° 50′ 0.864" 1° 34′ 56.528" 389 53° 10′ 2° 59′ 12.60 N E 31.388" N E  150 52° 50′ 0.814" 1° 34′ 58.972" 390 53° 10′ 2° 59′ 13.33	147			387		
N E 389 31.388" N E  150 52° 50′ 0.814" 1° 34′ 58.972" 390 53° 10′ 2° 59′ 13.33	148		_	388		
	149			389		
IN E 31.040 IN E	150	52° 50′ 0.814″ N	1° 34′ 58.972″ E	390	53° 10′ 31.646″ N	2° 59′ 13.389″ E

Point		Longitude (DMS)	Point	Latitude (DMS)	Longitude (DMS)
151	52° 50′ 0.739″ N	1° 35′ 1.414″ E	391	53° 31.932″ N	2° 59′ 14.088″ E
152		1° 35′ 3.854″ E		53° 32.243″ N	2° 59′ 14.756″ E
153	52° 50′ 0.510″ N	1° 35′ 6.290″ E	393	53° 32.579″ N	2° 59′ 15.390″ E
154	52° 50′ 0 357″			53° 32.938″ N	2° 59′ 15.988″ E
155	52° 50′ 0.178″ N	1° 35′ 11.150″ E	395	53° 33.319″ N	2° 59′ 16.548″ E
156	52° 49′ 59.974″ N	1° 35′ 13.572″ E	396	53° 33.721″ N	2° 59′ 17.066″ E
157	52° 49′ 59.745″ N	1° 35′ 15.987″ E	397	53° 34.141″ N	2° 59′ 17.541″ E
158	52° 49′ 59.490″ N	1° 35′ 18.396″ E	398	53° 34.578″ N	2° 59′ 17.972″ E
159	52° 49′ 59.209″ N	1° 35′ 20.797″ E	399	53° 35.031″ N	2° 59′ 18.356″ E
160	52° 49′ 58.903″ N	1° 35′ 23.190″ E	400	53° 35.497″ N	2° 59′ 18.692″ E
161	52° 49′ 58.573″ N	1° 35′ 25.573″ E	401	53° 35.975″ N	2° 59′ 18.978″ E
162	52° 49′ 58.217″ N	1° 35′ 27.947″ E	402	53° 36.463″ N	2° 59′ 19.214″ E
163	52° 49′ 57.836″ N	1° 35′ 30.310″ E	403	53° 36.959″ N	2° 59′ 19.398″ E
164	52° 49′ 57.430″ N	1° 35′ 32.661″ E	404	53° 37.461″ N	2° 59′ 19.531″ E
165	52° 49′ 56.999″ N	1° 35′ 35.001″ E	405	53° 37.966″ N	2° 59′ 19.610″ E
166	52° 49′ 56.544″ N	1° 35′ 37.328″ E	406	53° 38.474″ N	2° 59′ 19.637″ E
167	52° 49′ 56.064″ N	1° 35′ 39.641″ E	407	53° 38.982″ N	2° 59′ 19.610″ E
168	52° 49′ 55.560″ N	1° 35′ 41.940″ E	408	53° 39.488″ N	2° 59′ 19.531″ E
169	52° 49′ 55.032″ N	1° 35′ 44.225″ E	409	53° 39.990″ N	2° 59′ 19.399″ E
170	52° 49′ 54.480″ N	1° 35′ 46.494″ E	410	53° 40.485″ N	2° 59′ 19.214″ E

Point	(DMS)	Longitude (DMS)			Longitude (DMS)
171	52° 4 53.904" N	19′ 1° 35′ 48.746″	411		10′ 2° 59′ 18.978″
172	52° 4 53.304" N	19' 1° 35' 50.982" E	412	53° 41.451″ N	10' 2° 59' 18.692" E
173	52° 4 52.681" N	19' 1° 35' 53.200" E	413	53° 41.918″ N	10' 2° 59' 18.356" E
174	52° 4 52.034" N	19' 1° 35' 55.400" E	414	53° 42.370″ N	10' 2° 59' 17.972" E
175	52° 4 51.868″ N	1° 35′ 55.943″ E	415	53° 42.807″ N	10' 2° 59' 17.542" E
176	52° 4 40.863″ N	18' 1° 39' 22.453" E	416	53° 43.228″ N	10' 2° 59' 17.067" E
177	52° 4 40.702″ N	18' 1° 39' 22.924" E	417	53° 43.629″ N	10' 2° 59' 16.548" E
178	52° 4 40.367″ N	18' 1° 39' 23.994" E	418	53° 44.010″ N	10' 2° 59' 15.989" E
179	52° 4 40.234″ N	18' 1° 39' 24.393" E	419	53° 44.369″ N	10' 2° 59' 15.391" E
180	52° 4 40.107" N	18' 1° 39' 24.797" E	420	53° 44.705″ N	10' 2° 59' 14.757" E
181	52° 4 39.560″ N	18' 1° 39' 26.596" E	421	53° 45.017″ N	10' 2° 59' 14.089" E
182	52° 4 39.405″ N	18' 1° 39' 27.124" E	422	53° 45.302″ N	10' 2° 59' 13.389" E
183	52° 4 39.261″ N	18' 1° 39' 27.661" E	423	53° 45.561″ N	10' 2° 59' 12.661" E
184	52° 4 38.783″ N	18' 1° 39' 29.512" E	424	53° 45.792″ N	10' 2° 59' 11.908" E
185	52° 4 38.649″ N	18' 1° 39' 30.055" E	425	53° 45.993″ N	10' 2° 59' 11.132" E
186	52° 4 38.525″ N	18' 1° 39' 30.606" E	426	53° 46.166″ N	10' 2° 59' 10.336" E
187	52° 4 38.044″ N	18' 1° 39' 32.861" E	427	53° 46.307″ N	10' 2° 59' 9.524" E
188	52° 4 37.927" N	18' 1° 39' 33.484" E	428	53° 46.418″ N	10' 2° 59' 8.699" E
189	52° 4 37.569" N	18' 1° 39' 35.557" E	429	53° 46.498″ N	10' 2° 59' 7.864" E
190	52° 4 37.477″ N	18' 1° 39' 36.124" E	430	53° 46.545″ N	10' 2° 59' 7.022" E

Point	(DMS)	Longitude (DMS)		Latitude (DMS)		Longitude (DMS)
191	52° 48 37.396″ N	' 1° 39′ 36.696″ E	431	53° 46.561″ N		2° 59′ 6.176″ E
192	52° 48 37.137″ N	' 1° 39′ 38.662″ E	432	53° 46.545″ N		2° 59′ 5.331″ E
193	52° 48 37.067″ N	' 1° 39′ 39.237″ E	433	53° 46.498″ N	10′	2° 59′ 4.489″ E
194	52° 48 37.008″ N	' 1° 39′ 39.816″ E	434	53° 46.418″ N	10'	2° 59′ 3.654″ E
195	52° 48 36.824″ N	' 1° 39′ 41.805″ E	435	53° 46.307″ N		2° 59′ 2.829″ E
196	52° 48 36.776″ N	' 1° 39′ 42.387″ E	436	53° 46.166″ N		2° 59′ 2.017″ E
197	52° 48 36.739″ N	' 1° 39′ 42.971″ E	437	53° 45.993″ N		2° 59′ 1.221″ E
198	52° 48 36.617″ N	' 1° 39′ 45.198″ E	438	53° 45.792″ N		2° 59′ 0.445″ E
199	52° 48 36.608″ N	' 1° 39′ 45.442″ E	439	53° 45.561″ N		2° 58′ 59.691″ E
200	52° 48 36.111″ N	′ 1° 39′ 58.227″ E	440	53° 45.302″ N		2° 58′ 58.964″ E
210	52° 47 53.162″ N	' 1° 57′ 17.842″ E	441	53° 45.017″ N		2° 58′ 58.264″ E
202	52° 47 51.688″ N	' 1° 57′ 48.405″ E	442	53° 44.705″ N		2° 58′ 57.596″ E
203	52° 47 50.436″ N	1° 58′ 0.642″ E	443	53° 44.369″ N		2° 58′ 56.962″ E
204	52° 47 48.214″ N	′ 1° 58′ 12.320″	444	53° 44.010″ N		2° 58′ 56.364″ E
205	52° 47 42.495″ N	' 1° 58′ 33.820″ E	445	53° 43.629″ N		2° 58′ 55.804″ E
206	52° 47 36.793″ N	′ 1° 58′ 49.157″ E	446	53° 43.228″ N		2° 58′ 55.286″ E
207	52° 47 27.713″ N	, 1° 59′ 7.719″ E	447	53° 42.807″ N		2° 58′ 54.811″ E
208	52° 47 19.963″ N	′ 1° 59′ 19.409″ E	448	53° 42.370″ N		2° 58′ 54.380″ E
209	52° 47 10.581″ N	' 1° 59′ 30.409″ E	449	53° 41.918″ N		2° 58′ 53.997″ E
210	52° 45′ 3.401′ N	2° 1′ 51.874″ E	450	53° 41.451″ N		2° 58′ 53.661″ E

Point	Latitude (DMS)	Longitude (DMS)	Point	Latitude (DMS)	Longitude (DMS)
211	52° 45′ 3.127″ N	2° 1′ 52.189″ E	451	53° 40.973″ N	10' 2° 58' 53.374" E
212	52° 45′ 2.287″ N	2° 1′ 53.183″ E	452	53° 40.485″ N	10' 2° 58' 53.139" E
213	52° 15′ 1 635″			53° 39.990″ N	10' 2° 58' 52.954" E
214	520 451 1 251"			53° 39.488″ N	10' 2° 58' 52.822" E
215	52° 45′ 0 388″			53° 38.982″ N	10' 2° 58' 52.742" E
216	52° 45′ 0 110″			53° 38.474″ N	10' 2° 58' 52.716" E
217	52° 44′			53° 37.966″ N	10' 2° 58' 52.742" E
218	52° 44'			53° 37.461″ N	10' 2° 58' 52.822" E
219	52° ΔΔ'			53° 36.959″ N	10' 2° 58' 52.954" E
220	52° 44'			53° 36.463″ N	10' 2° 58' 53.139" E
221	52° ΔΔ'			53° 35.975″ N	10' 2° 58' 53.375" E
222	520 111			53° 35.497″ N	10' 2° 58' 53.661" E
223	52° 44′		162	53° 35.031″ N	10' 2° 58' 53.997" E
224	52° 44′ 56.253″ N	2° 2′ 2.175″ E	464	53° 34.578″ N	10' 2° 58' 54.381" E
225	52° 44′ 56.022″ N		465	53° 34.141″ N	10' 2° 58' 54.812" E
226	52° 44′ 55.800″ N		466	53° 33.721″ N	10' 2° 58' 55.287" E
227	52° 44′ 55.053″ N		467	53° 33.319″ N	10' 2° 58' 55.805" E
228	52° 44′ 54.839″ N	2° 2′ 5.136″ E	468	53° 32.938″ N	10' 2° 58' 56.364" E
229	52° 44′ 54.635″ N	2° 2′ 5.615″ E	469	53° 32.579″ N	10' 2° 58' 56.962" E
230	52° 44′ 53.950″ N		470	53° 32.243″ N	10' 2° 58' 57.597" E

Point	Latitude (DMS)	Longitude (DMS)	Point	Latitude (DMS)	Longitude (DMS)
231	-	44′ 2° 2′ 7.768″ E	471	53° 31.932″ N	10' 2° 58' 58.265" E
232	52° 53.569″ N		472	53° 31.646″ N	10' 2° 58' 58.964" E
233		44′ 2° 2′ 9.998″ E	473	53° 31.388″ N	10' 2° 58' 59.692" E
234	52° 52.773″ N	• •	474	53° 31.157″ N	
235	52° 52.607″ N	44′ 2° 2′ 11.025″ E	475	53° 30.955″ N	10' 2° 59' 1.221" E
236	52° 52.053″ N		476	53° 30.783″ N	10' 2° 59' 2.017" E
237	52° 51.897″ N	44′ 2° 2′ 13.343″ E	477		10' 2° 59' 2.829" E
238	52° 51.751″ N	44′ 2° 2′ 13.877″ E	478	53° 30.531″ N	10' 2° 59' 3.654" E
239	52° 51.267″ N	44′		53° 30.451″ N	
240	52° 51.131″ N	44′ 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 m<sup>3</sup> 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 m<sup>3</sup> for cable (including fibre optic cable) installation;
    - (ii) 75,000 m<sup>3</sup> for the offshore electrical platforms;

- (iii) 3,100,000 m<sup>3</sup> 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 m<sup>3</sup> 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 m<sup>3</sup>.
- **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 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 the offshore electrical platform(s), foundations with a combined seabed footprint area (excluding scour protection) of greater than 15,000m<sup>2</sup>.
- 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 <sup>3</sup> )	Cable protection $(m^2)$
Work (Intercon	No. 3A nector link)	90 kilometres	17,000 m <sup>3</sup>	34,000 m <sup>2</sup>
Work No (export c		500 kilometres	69,236m <sup>3</sup>	124,086m <sup>2</sup>

#### 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 20,000m<sup>2</sup> and 100,000 m<sup>3</sup> 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 m<sup>3</sup>;
  - (d) the total amount of disposal for drill arisings in connection with any foundation drilling must not exceed 14,137m<sup>3</sup>;
  - (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 24,000m<sup>2</sup> and the total volume of cable protection must not exceed 13,600m<sup>3</sup>; 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 2002(3) (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) 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.

<sup>(3)</sup> S.I. 2002/1355.

### 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

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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.