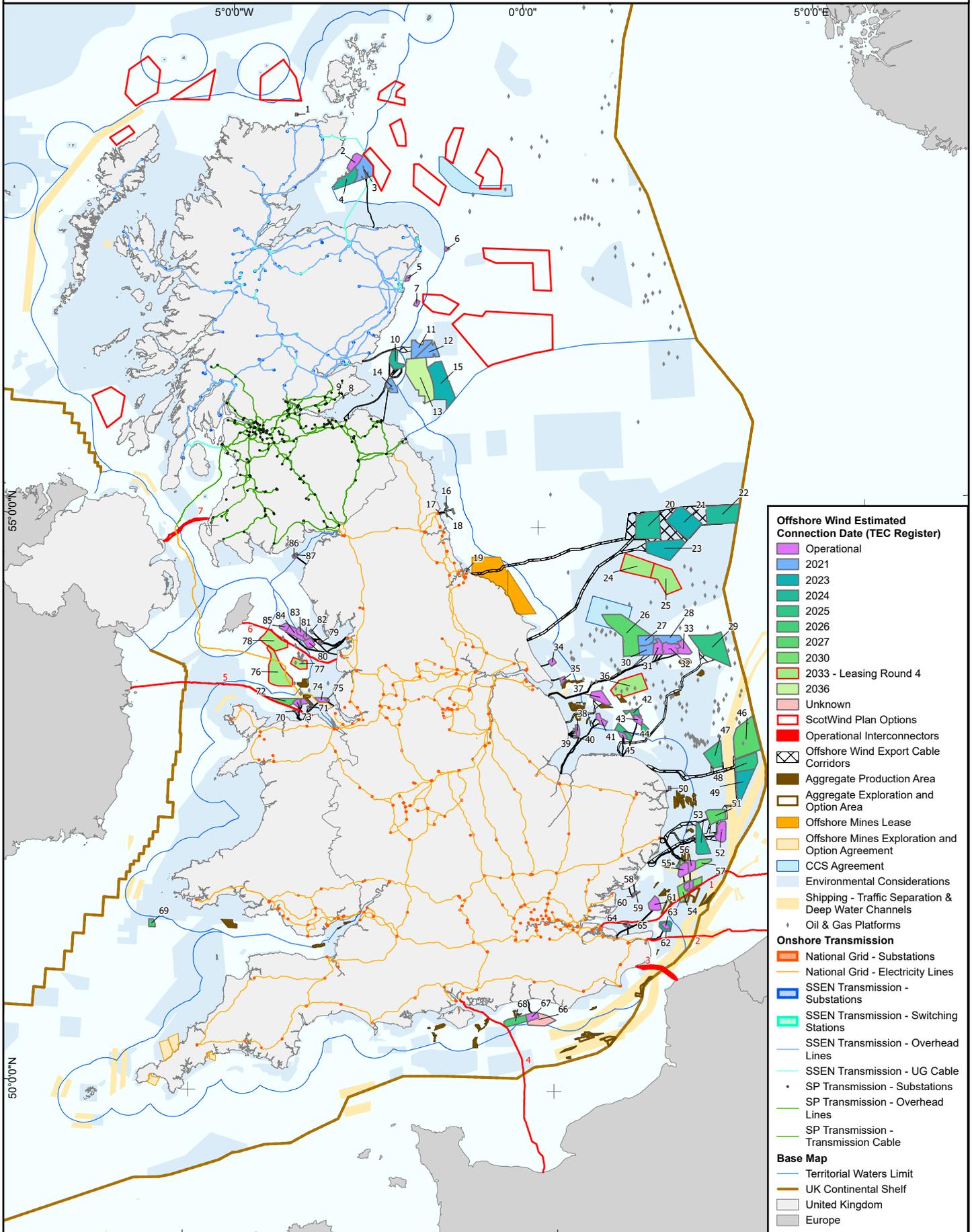


OTNR Generation Map

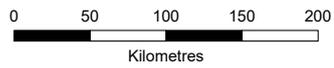


GIS_2021_0200

Author: JS

QA: N/A

Scale 1:5,000,000 at A4



Date: 07/06/2021

TCE Ref: N/A

Positions shown relative to WGS 84. © Crown Copyright 2021, all rights reserved. Reproduction in whole or part is not permitted without prior consent of The Crown Estate. OceanWise Data: License No. EK001-20140411. © Crown copyright and database rights 2021 OS 100019722. www.thecrownestate.co.uk/ordnance-survey-licence/. Limits: Supplied by UKHO. Not to be used for Navigation.
 Estimated connections dates sourced from National Grid ESO TEC Register 23/02/2021 & Interconnector Register 18/03/2021.
 Scottish Offshore Wind Farm Sites, OFTO Cable Corridors & CCUS: Supplied by Crown Estate Scotland. ScotWind Plan Options: Supplied by Marine Scotland.
 Onshore Transmission Infrastructure: Supplied by National Grid, SSEN-T & SPEN-T
 Environmental Considerations data supplied by: JNCC, NE, NRW, SNH & NIEA. Oil & Gas Platforms supplied by: OGA
 Shipping Information data supplied by: OceanWise. Data is accurate at time of publication but may be subject to change.

1 St James's Market
 London
 SW1Y 4AH
www.thecrownestate.co.uk



Label	Offshore Wind Site Name	Operator
1	Wind T&D Site	Dounreay Tri Ltd
2	Beatrice Offshore Wind Farm	Beatrice Offshore Wind Farm Li
3	Moray Offshore Windfarm (East)	Moray Offshore Wind Farm
4	Z1_WDA	Moray Offshore Windfarm (West)
5	Aberdeen Offshore W/F	Aberdeen Offshore WindFarm Ltd
6	Buchan Deep Demo	Hywind (Scotland) Ltd
7	Kincardine	Kincardine Offshore WF Ltd
8	Methil Demo	ORE Catapult Ltd
9	2B Energy Methil Demonstration	Forthwind Ltd
10	Inch Cape Offshore Wind Farm	Inch Cape Offshore Ltd
11	Seagreen Alpha Project Z2 Firth of Forth	Seagreen Alpha Wind Energy Ltd
12	Seagreen Bravo Project Z2 Firth of Forth	Seagreen Alpha Wind Energy Ltd
13	Seagreen Delta Project Z2 Firth of Forth	Seagreen Delta Wind Energy
14	Neart Na Gaoithe Offshore Wind	Neart Na Gaoithe Offshore Wind
15	Seagreen Charlie Project Z2 Firth of Forth	Seagreen Charlie Wind Energy
16	Blyth Demonstration Site	Blyth Offshore Demonstrator Limited
17	Blyth	Blyth Offshore Wind Limited
18	Blyth Demo Phase 1	Blyth Offshore Demonstrator Limited
19	Teesside	Teesside Windfarm Limited
20	Dogger Bank B	Doggerbank Offshore Wind Farm Project 2 Projco Limited
21	Sofia	Sofia Offshore Wind Farm Limited
22	Dogger Bank C	Doggerbank Offshore Wind Farm Project 3 Projco Limited
23	Dogger Bank A	Doggerbank Offshore Wind Farm Project 1 Projco Limited
24	Round 4 Preferred Project 1	RWE Renewables
25	Round 4 Preferred Project 2	RWE Renewables
26	Hornsea Project Four (HOW04)	Orsted Hornsea Project Four Limited
27	Hornsea Project 2 - Phase 2 (Soundmark)	Optimus Wind Ltd
28	Hornsea Project 2 - Phase 1 (Breesea)	Optimus Wind Ltd
29	Hornsea Project Three (HOW03)	Orsted Hornsea Project Three (UK) Limited
30	Hornsea Project 2 - Phase 3 (Sonningmay)	Optimus Wind Ltd
31	Hornsea 1 (West)	Hornsea 1 Limited
32	Hornsea 1 (Centre)	Hornsea 1 Limited
33	Hornsea 1 (East)	Hornsea 1 Limited
34	Westermost Rough	Westermost Rough Limited
35	Humber Gateway	E.ON Climate & Renewables UK Humber Wind Limited
36	Round 4 Preferred Project 3	Green Investment Group - Total
37	Triton Knoll	Triton Knoll Offshore Wind Farm Limited
38	Lincs	Lincs Wind Farm Limited
39	Inner Dowsing	Inner Dowsing Wind Farm Limited
40	Lynn	Lynn Wind Farm Limited
41	Race Bank	Race Bank Wind Farm Limited
42	Dudgeon Extension	Dudgeon Extension Limited
43	Dudgeon	Dudgeon Offshore Wind Limited
44	Sheringham Shoal Extension	SCIRA Extension Limited
45	Sheringham Shoal	SCIRA Offshore Energy Limited
46	Norfolk Boreas	Norfolk Boreas Limited
47	Norfolk Vanguard West	Norfolk Vanguard Limited
48	Norfolk Vanguard East	Norfolk Vanguard Limited
49	East Anglia Three	East Anglia Three Limited
50	Scroby Sands	E.ON Climate & Renewables UK Offshore Wind Limited
51	East Anglia One North	East Anglia One North Limited
52	East Anglia One	East Anglia One Limited
53	East Anglia Two	East Anglia Two Limited
54	Greater Gabbard Extension	North Falls Offshore Wind Farm Limited
55	Greater Gabbard	Greater Gabbard Offshore Wind Limited
56	Galloper	Galloper Wind Farm Limited
57	Five Estuaries	Five Estuaries Offshore Wind Farm Limited
58	Gunfleet Sands I	Gunfleet Sands Limited
59	Gunfleet Sands II	Gunfleet Sands II Limited
60	Gunfleet Sands Demo	Gunfleet Sands Demo Limited
61	London Array	London Array Limited
62	Thanet Extension	Vattenfall Wind Power Ltd
63	Thanet	Thanet Offshore Wind Limited
64	Kentish Flats	Kentish Flats Limited
65	Kentish Flats Extension	Vattenfall Wind Power Limited
66	Rampion (Southern Array)	E.ON Climate and Renewables UK Southern Array Limited

67	Rampion	Rampion Offshore Wind Limited
68	Rampion Extension	Rampion Extension Development Limited
69	Erebus	Blue Gem Wind Limited
70	Rhyl Flats	Rhyl Flats Wind Farm Limited
71	North Hoyle	North Hoyle Wind Farm Limited
72	Awel y Mor	Awel y Mor Offshore Wind Farm Limited
73	Gwynt y Mor	Gwynt y Mor Offshore Wind Farm Limited
74	Burbo Bank Extension	Orsted Burbo Extension (UK) Limited
75	Burbo Bank	Orsted Burbo (UK) Limited
76	Round 4 Preferred Project 4	Consortium of EnBW and BP Offshore Wind Limited, a Joint Venture between Cobra Instalaciones y Servicios, S.A. and Flotation E
77	Round 4 Preferred Project 5	Consortium of EnBW and BP
78	Round 4 Preferred Project 6	Consortium of EnBW and BP
79	Barrow	Barrow Offshore Wind Limited ScottishPower Renewables (WoDS) Limited and Orsted West of Duddon Sands (UK) Limited
80	West of Duddon Sands	(UK) Limited
81	Walney 1	Walney (UK) Offshore Windfarms Limited
82	Ormonde	Ormonde Energy Limited
83	Walney 2	Walney (UK) Offshore Windfarms Limited
84	Walney Extension 4	Walney Extension Limited
85	Walney Extension 3	Walney Extension Limited
86	Robin Rigg West	RWE Renewables UK
87	Robin Rigg East	RWE Renewables UK

Label Interconnector Name

- 1 Britned Electricity Cable
- 2 NEMO
- 3 Cross Channel Link (Folkestone)
- 4 IFA 2
- 5 East - West Interconnector
- 6 Isle Of Man Interconnector
- 7 Moyle Interconnector (NI inc. Reinforcement)

Operator

- BritNed Development Ltd
NEMO LINK Ltd
National Grid Plc
National Grid IFA 2 Ltd.
Eirgrid PLC
Manx Cable Company Ltd
Moyle Interconnector Limited

Offshore Transmission Network Review: Development of the OTNR Generation Map

Paper dated 14/07/21

Following discussion with BEIS and Ofgem during Spring 2021, The Crown Estate (“TCE”) has used its technical GIS expertise to generate a bespoke map which combines both the location of existing and planned offshore wind generation sites in UK waters with a perspective on when projects in development might connect in order to help inform the Offshore Transmission Network Review (“OTNR”), specifically the ‘Pathway to 2030’ workstream – called the “OTNR Generation Map”.

Information on project locations was taken from lease agreements. Information on connection dates was also taken from the TEC Register¹. This combination of physical location and when the projects might connect provides a temporal perspective of connection through the 2020s and into the early 2030s. The OTNR Generation Map includes a range of other data including existing and planned export cable corridors (where possible), the cable routes for operational interconnectors, the onshore transmission system in GB (overhead lines and substations) and a number of environmental designations in the offshore area.

Moving forward, as set out in Ofgem’s July 2021 consultation on the OTNR², National Grid Electricity System Operator (in consultation with the Central Design Group including the three Transmission Owners in GB) will utilise the OTNR Generation Map as an input into its work to deliver a holistic network design for the offshore wind projects that are being considered in the ‘Pathway to 2030’ workstream. TCE recognises that additional information may need to be added to that as provided in the OTNR Generation Map in due course. Any additions or amendments to the data sources made after the date of this paper will be the responsibility of the organisation making the change.

Crown Estate Scotland has been consulted throughout the development of this Generation Map and has both provided additional information in respect of offshore wind generation sites in Scottish waters, as well as ensuring that as far as is possible there is consistency in the information depicted at a GB level.

The OTNR Generation Map is provided in two formats:

- (i) as a pdf file which shows a flat profile of the above information. A series of pdf maps have been produced, one for each year through the period being considered in addition to an overall map showing all activity.
- (ii) via a mix of GIS shapefiles and links to access other publicly available GIS data; once uploaded into their own GIS systems, users will have the data in a more interactive format.

¹ <https://www.nationalgrideso.com/industry-information/connections/reports-and-registers>. TCE is aware that the connection dates (and other information) in the TEC Register can change and therefore it represents a snapshot only of the contracted position. This data has been used however to inform the OTNR Generation Map as it is a publicly available source of information and includes the vast majority of offshore wind projects in GB.

² [Consultation on changes intended to bring about greater coordination in the development of offshore energy networks | Ofgem](#)