

# ***WEST OF ORKNEY WINDFARM***

## **Offshore Transmission Infrastructure Marine Licence Supporting Document**

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## West of Orkney Windfarm: Transmission Infrastructure Supporting Information

The offshore Project will comprise of WTGs and all infrastructure required to transmit the power generated by the WTGs to shore. The key offshore components of the offshore Project will include:

- Up to 125 WTGs with fixed-bottom foundations (monopile, piled jacket or suction bucket jacket);
- Up to five High Voltage Alternating Current (HVAC) OSPs;
- Up to 500 km of inter-array cables;
- Up to 150 km of interconnector cables; and
- Up to five offshore export cables to landfalls at Greeny Geo and/or Crosskirk at Caithness, with a total length of up to 320 km (up to 64 km per offshore export cable).

The offshore Project area of the West of Orkney Windfarm consists of the Option Agreement Area (OAA) and the offshore Export Cable Corridor (ECC) and includes all offshore components seaward of mean high water springs (MHWS). The generating station (which is subject to Section 36 consent) comprises of the Wind Turbine Generators (WTGs), WTG foundations and inter-array cables which are located within the OAA. The transmission infrastructure includes the offshore substation platforms (OSP), interconnector cables, and export cables and is located within the OAA and ECC.

The transmission infrastructure is the subject of this Marine Licence application.

The onshore Project, which is defined by the Red Line Boundary for the planning application, includes all onshore components landward of mean low water springs (MLWS) which encompasses: landfall, onshore underground export cables, substation, access, and other associated infrastructure.

The onshore components are subject to a separate application for Planning Permission in Principle, which will be submitted to The Highland Council (THC) in October 2023.

## 5. Description and Cost of Proposed Project

### 5 (b) Give a detailed description of the Proposed Schedule of Work

An overview of the indicative construction programme is provided below. A more detailed version of the construction schedule is included within chapter 5: Project Description, Offshore EIA Report. Further detail on the timing and sequence of activities are included in the Offshore EIA Report topic specific chapters.

The key Project milestones are likely to be:

- Commencement of onshore construction – 2027;
- Commencement of offshore construction – 2028; and
- First power, earliest date is 2029.

It is anticipated that the construction of the offshore Project will take up to four years (subject to change), with an additional one year of pre-construction works. Pre-construction works are expected to include Project specific surveys, site investigations and site preparation works.

It is anticipated that construction will only occur up to nine months a year. Weather conditions during the winter months, particularly November to January, are unlikely to be suitable for offshore construction. Therefore, construction will occur over multiple seasons across the four years (inclusive of seabed preparation works) to avoid adverse weather conditions, and first power may occur ahead of the construction stage being complete. The construction activities that could commence in the first 12 months are listed below on an indicative basis only and are dependent on a number of factors including contractor and vessel selection and/or availability, weather conditions and ground conditions.

The general series of activities is as follows:

- Project-specific surveys and site-investigations;
- Site and seabed preparation;

- OSP installation; and
- Offshore export landfall and offshore installation; Inter-array and interconnector cable installation.

## 6. Location of Project (including any temporary deposit locations)

Coordinates of the OAA and ECC within which the transmission infrastructure will be located are listed below in Table 1 . The OAA and ECC are illustrated below in Figure 1.

**Table 1 - Coordinates of the OAA and ECC**

Point number	WGS84 UTM 30 N		WGS84 DDM	
	Easting	Northing	Latitude	Longitude
1	413285	6516848	58° 46.974' N	004° 30.000' W
2	413357	6520090	58° 48.721' N	004° 30.000' W
3	421165	6525736	58° 51.852' N	004° 22.011' W
4	424017	6538364	58° 58.685' N	004° 19.305' W
5	420217	6544775	59° 2.098' N	004° 23.409' W
6	427505	6550431	59° 5.222' N	004° 15.904' W
7	436964	6543304	59° 1.473' N	004° 5.880' W
8	447049	6535760	58° 57.491' N	003° 55.234' W
9	447641	6527484	58° 53.036' N	003° 54.499' W
10	447552	6527427	58° 53.005' N	003° 54.591' W
11	448016	6526750	58° 52.643' N	003° 54.098' W
12	453646	6514172	58° 45.905' N	003° 48.083' W
13	453764	6513805	58° 45.708' N	003° 47.957' W
14	454584	6507362	58° 42.242' N	003° 47.027' W
15	458038	6503424	58° 40.141' N	003° 43.408' W
16	461157	6498104	58° 37.292' N	003° 40.126' W
17	461269	6497907	58° 37.186' N	003° 40.009' W
18	461333	6497732	58° 37.092' N	003° 39.941' W
19	461122	6497534	58° 36.984' N	003° 40.157' W
20	460902	6497118	58° 36.759' N	003° 40.380' W
21	460901	6496433	58° 36.390' N	003° 40.373' W
22	460642	6496732	58° 36.550' N	003° 40.644' W
23	460119	6496507	58° 36.426' N	003° 41.181' W
24	459760	6496681	58° 36.518' N	003° 41.555' W
25	459210	6497471	58° 36.940' N	003° 42.130' W
26	459434	6496254	58° 36.285' N	003° 41.886' W
27	458696	6495665	58° 35.964' N	003° 42.641' W

Point number	WGS84 UTM 30 N		WGS84 DDM	
	Easting	Northing	Latitude	Longitude
28	457732	6495043	58° 35.623' N	003° 43.630' W
29	457590	6495303	58° 35.762' N	003° 43.779' W
30	457546	6495465	58° 35.850' N	003° 43.827' W
31	456286	6502312	58° 39.531' N	003° 45.207' W
32	435840	6517244	58° 47.424' N	004° 6.602' W
33	432553	6517804	58° 47.695' N	004° 10.024' W
34	430742	6516647	58° 47.054' N	004° 11.883' W
35	452545	6507545	58° 42.327' N	003° 49.141' W
36	436589	6519127	58° 48.445' N	004° 5.857' W
37	435062	6519405	58° 48.581' N	004° 7.448' W
38	440237	6522720	58° 50.412' N	004° 2.127' W
39	445869	6526344	58° 52.409' N	003° 56.326' W
40	446264	6525775	58° 52.106' N	003° 55.907' W
41	451798	6513406	58° 45.480' N	003° 49.990' W

## 8. Permanent (and Temporary) Deposits

### 1. 8 (a) Quantity of permanent (and temporary, where applicable) materials to be deposited below MHWS:

Type of Deposit	Nature of Deposit (P = Permanent; T= Temporary)	Deposit Quantity
Steel / Iron	P	90,000 tonnes
Timber		
Plastic / Synthetic		
Concrete	P	100,000 m <sup>3</sup>
Silt		
Sand		
Stone / Rock / Gravel	P	6,698,500 m <sup>3</sup>
Concrete bags / Mattresses	P	4,000,000 m <sup>3</sup>
Cable	P	470,000 m
Other*		

### 2. 8 (b) Method of delivery of material

All of the listed materials required for the offshore Project (below MHWS) are to be brought to the offshore Project location by sea.

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Further details on the anticipated vessel requirements for the construction phase are provided in the Offshore EIA Report, chapter 5: Project description.

An Outline Navigation Safety and Vessel Management Plan and an Outline Aids to Navigation Management Plan have been prepared and have been submitted alongside the Offshore EIA Report.

## 24. Advertising and Consultation

### (a) Have the proposals been advertised to the public? If YES, how and where?

The West of Orkney Windfarm has completed extensive public consultation on the proposals during the pre-application stage of the Project over five key phases, as follows:

Phase 1: Virtual public exhibition introducing the West of Orkney Windfarm launched 21st March 2022 with two live question and answer webinars on 29th March 2022. The virtual exhibition has remained live throughout the pre-application consultation period and has regularly been updated with new content, as appropriate.

Phase 2: Mobile public exhibition at five summer/ autumn events in Durness (28th July 2022), Halkirk (29th July 2022), Dounby (11th August 2022), Kirkwall (13th August 2022) and Stromness (3rd September 2022)

Phase 3: Public consultation drop-in events at seven local venues in Caithness, Sutherland and Orkney (22nd to 30th November 2022)

Phase 4: Formal pre-application consultation (PAC) events at seven venues in Caithness, Sutherland and Orkney (16th to 25th May 2023)

Phase 5: Formal PAC events (onshore proposal only) at two venues in Caithness (20th to 21st June 2023)

The events have been advertised and promoted through a variety of channels including press releases, posters in local businesses and public buildings, adverts in event programmes, social media and by community leaders. In addition, leaflets inviting people to the events held during phases 3, 4 and 5 were sent to all local residents in the consultation zone. The leaflets also advised local residents on how to get more information and/ or make comments. The events in phases 1, 3, 4 and 5 were advertised in the following local publications:

- The Caithness Courier
- John O'Groats Journal
- The Orcadian

The materials used at each of the events was also replicated in the virtual exhibition and key documents were made available on the Project website ([www.westoforkney.com](http://www.westoforkney.com)). A dedicated email address, phone number and Freepost address were set-up for members of the public to get in touch to make comments and/ or obtain further information including hard copies of materials, one-to-one consultation meetings or advice on our next consultation activities.

Full details of the public consultation can be found in the PAC report submitted with this application.

Following validation of the Section 36 Consent and associated Marine Licence applications for the offshore proposals, an advert inviting the public to submit their comments on the application will be placed in the following publications:

- The Herald;
- The Caithness Courier;
- John O'Groat Journal;
- The Orcadian;
- The Press and Journal;

- Edinburgh Gazette;
- Fishing News; and
- Lloyds List.

**3. 24 (b) Have the public been invited to submit comments? If Yes, to whom and by what closing date?**

Yes, the public have been invited to submit comments on the proposals and will be invited to submit comments on the application. Members of the public could submit comments via the Community Questionnaire which was made available at all in-person events and online. Access to the questionnaire was provided via a scannable QR code and made available on the Project website and the virtual exhibition. In addition, posters inviting feedback (via the QR code or the website) were posted in local businesses and public buildings in Orkney, Sutherland and Caithness.

The public were also invited to submit comments or request a hard copy of the questionnaire via the dedicated email address, phone number and freepost address. These channels were also featured on the posters. Visitors to the events were invited to take hard copies away for friends and family who could then submit their completed questionnaires via the freepost address.

Information about how to make comments on the proposals was included on the leaflets sent out to local residents and on the press adverts. A closing date for submitting comments of 30<sup>th</sup> June 2023 was set prior to the offshore PAC event in May 2023 and advertised on the associated leaflets and adverts.

In terms of inviting the public to submit comments on the application, the public adverts published following submission of the application will advise the public on how and when to respond to the consultation, in line with provisions of The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended), The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017, the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 and the Electricity (Applications for Consent) Regulations 1990.

These adverts will run for two consecutive weeks in the publications listed in response to question 24(a), following agreement with Marine Directorate..

Hard copies of the application documents will be made available for the public to view in the following locations:

Location	Address	Opening Hours
Thurso Library	Davidson's Lane Thurso KW14 7AF	Monday and Wednesday -10am - 6pm Tuesday and Friday -10am - 8pm Thursday and Saturday -10am - 1pm Friday - 10am – 8pm
Bettyhill Hotel	A836 Bettyhill KW14 7SP	Monday to Sunday -3pm – 10.30pm
The Highland Council Headquarters	Glenurquhart Road Inverness IV3 5NX	Monday to Friday -8am – 4pm
The Stromness Library	2 –12 Victoria Street Stromness Orkney KW16 3AA	Monday to Friday -10am – 4pm Saturday -12pm – 3pm

Location	Address	Opening Hours
Orkney Library and Archive	44 Junction Road Kirkwall Orkney KW15 1AG	Monday to Thursday -10am – 6pm Friday to Saturday -10am to 5pm
Xodus Group	8 Garson Place Stromness KW16 3EE	Monday to Friday -9am – 5pm
West of Orkney Windfarm	32 Charlotte Square Edinburgh EH2 4ET	Monday to Friday -9am – 5pm

An electronic copy of the application will also be made available at the following location:

Location	Website URL
West of Orkney Project website.	<a href="https://www.westoforkney.com/">https://www.westoforkney.com/</a>

**4. 24 (c) Have any consultation meetings with the public been arranged? If Yes, where and when are these to be held?**

Yes, many public consultation meetings have been held since the consultation was launched in March 2022. Please see the PAC Report for details. Further events are proposed to be held following submission and registration of the application. These are expected to include additional meetings of the Caithness, Sutherland and Orkney Community Panels as well as community events and exhibitions. It is anticipated that the Community Panels will advise on the ongoing consultation programme based on the needs of each local community. Details of the Community Panels can be found in the PAC report.

During the pre-application consultation period, a total of 29 public events were held which were advertised through 61,864 postal leaflets and attended by 1,551 attendees. In addition, 530 community questionnaires were completed and 10 phone calls and 60 emails were received via the dedicated channels.

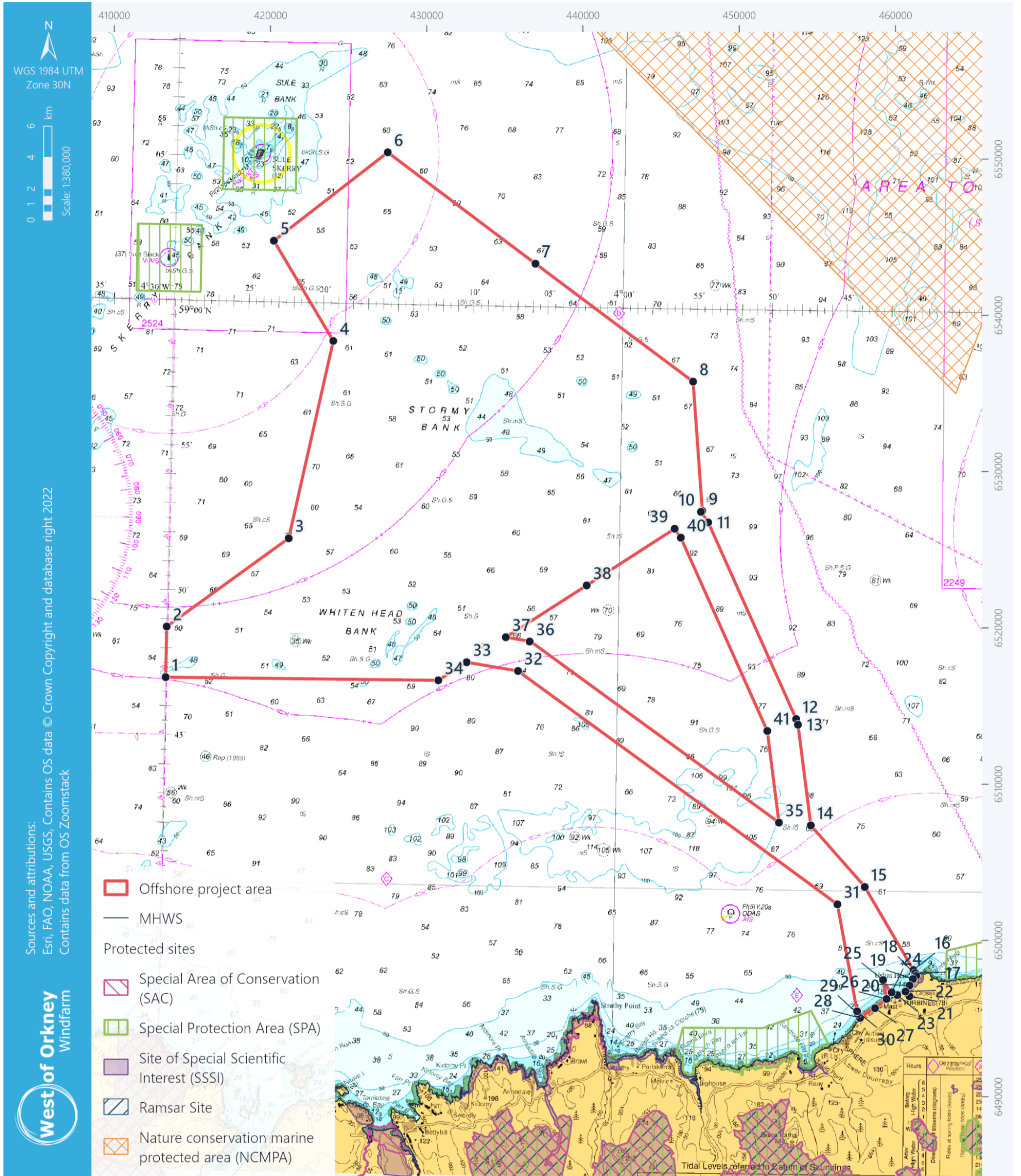


Figure 1 - OAA and ECC of the West of Orkney Windfarm



