West of Orkney
Windfarm

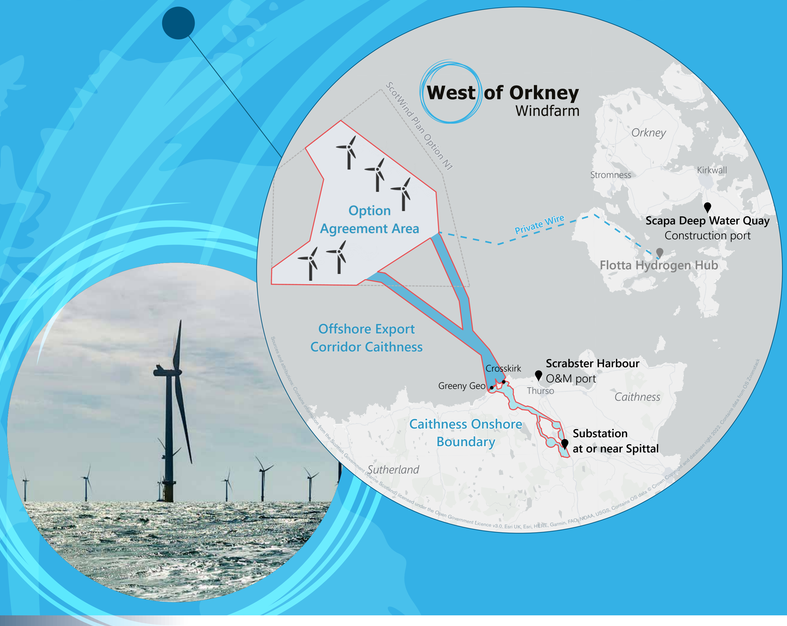
WEST OF ORKNEY WINDFARM

The West of Orkney Windfarm is located around 30km west of Orkney and 25km from the north coast of Scotland. The project is being developed by Corio Generation, TotalEnergies and RIDG, a consortium with deep Scottish roots, a commitment to delivery and a clear vision for the project.

2 MILLION
HOMES SUPPLIED WITH ELECTRICITY

2029
TARGET FIRST GENERATION

~2000MW
OF POWER WILL BE GENERATED



CORIO TotalEnergies RIDG

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OFFSHORE

- Up to 125 wind turbine generators with a maximum tip height of 370m
- Fixed turbine foundations
- Up to five offshore substation platforms
- Inter-array cables linking the wind turbines and offshore substation platforms
- Up to five export cables to Caithness
- Up to five export cables to Flotta (future separate application)

ONSHORE

- New substation at or near Spittal
- Up to five underground cable circuits from landfall point to substation
- Orkney infrastructure subject to future separate application
- New substation near existing Flotta Oil Terminal/proposed Flotta Hydrogen Hub
- Up to five underground cable circuits to Flotta substation

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ONSHORE PROPOSAL

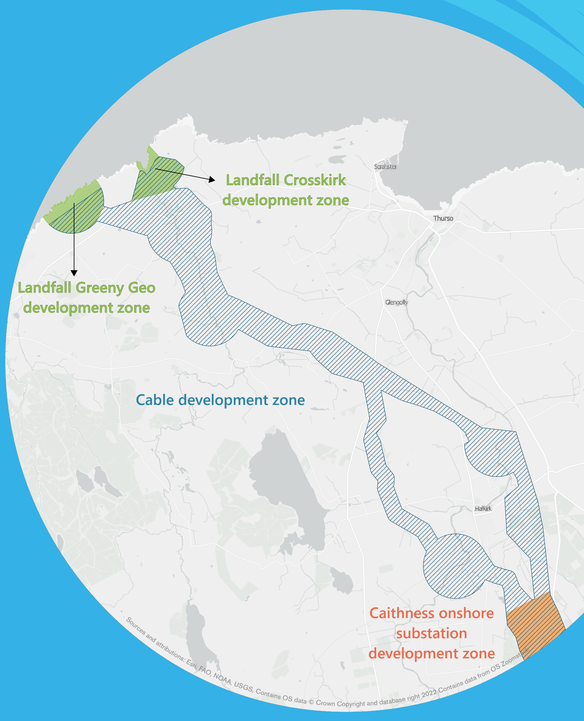
In November 2020, National Grid confirmed that the West of Orkney Windfarm's grid connection would be 'at or near Spittal'. The onshore cables will run from the two potential landfall locations Greeny Geo and/or Crosskirk. The onshore route has been split into three development zones: landfall, onshore cable route, and substation. The figure below indicates which activities will occur within each of the zones.

CABLE DEVELOPMENT ZONE

- Establishment of compounds
- Enabling works
- Horizontal directional drilling/main crossing works
- Cable trenching (including foreseen crossings)
- Ducts/duct bank installation
- Joint bay excavation and installation
- Cable installation
- Cable jointing and testing
- Cable trench backfilling
- Reinstatement of joint bay sites
- Removal of compounds and final reinstatement works

LANDFALL DEVELOPMENT ZONES

- Enabling works
- Horizontal directional drilling works
- Transition joint bay construction
- Pull in and jointing of offshore export cables



SUBSTATION DEVELOPMENT ZONE

- Enabling works
- Onshore substation civil works
- Onshore substation mechanical and electrical works
- Onshore substation cold commissioning
- Onshore substation energised and hot commissioning
- Grid connection enabling works
- Grid connection civil works
- Grid connection mechanical and electrical works
- Grid connection commissioning
- Final reinstatement and landscaping works

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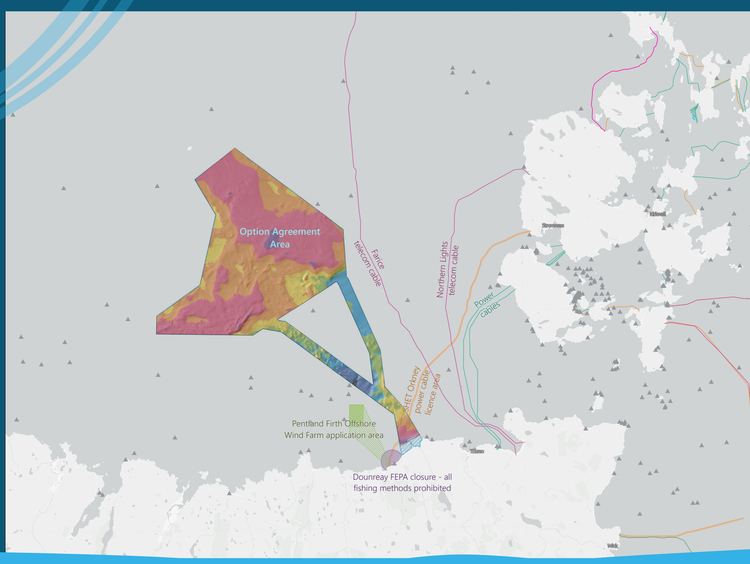


Wreck/obstruction

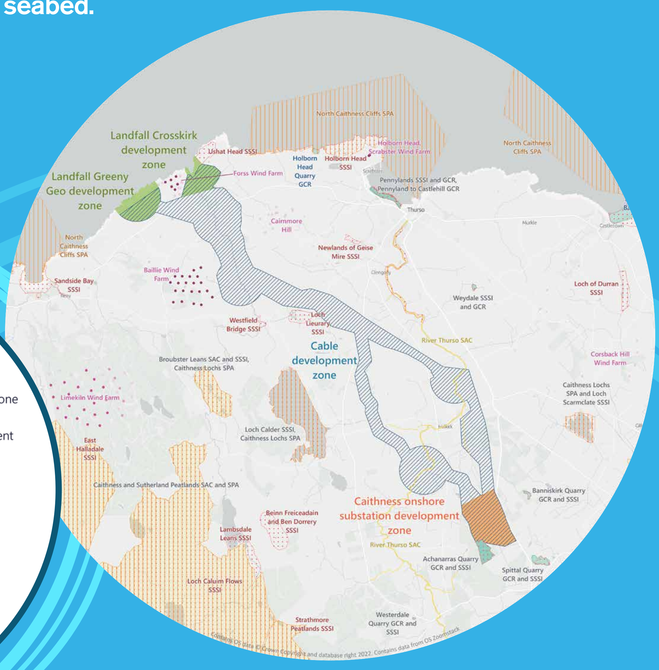
Offshore Project Area
Water depth (m)

- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81-90
- 91-100
- 101-110
- 111-120

CABLE ROUTE REFINEMENT

There are two shallow banks located within the OAA referred to as Stormy Bank and Whiten Head Bank. A combination of water depth, seabed composition and environmental constraints will determine the turbine layout. The Project will have turbines which will be fixed to the seabed.

The onshore cable corridor continues to be refined and has been influenced by the following features:



Protected sites

- Special protection area (SPA)
- Site of special scientific interest (SSSI)
- Geological conservation review (GCR) site
- Special area of conservation (SAC)

Development Zones

- Cable development zone
- Caithness onshore substation development zone
- Landfall Crosskirk development zone
- Landfall Greeny Geo development zone

Onshore windfarm status

- Constructed
- Under Construction
- Approved
- Scoping/Screening; In Planning
- Status unknown

In February 2023, SSEN Transmission commenced consultation about planned investments in the transmission network across the north of Scotland to support the significant growth of renewable energy forecast, particularly onshore and offshore wind. This includes upgrading existing lines, building new overhead lines, subsea cables and a new substation in the Spittal area.

Scan this QR code for more information from SSEN

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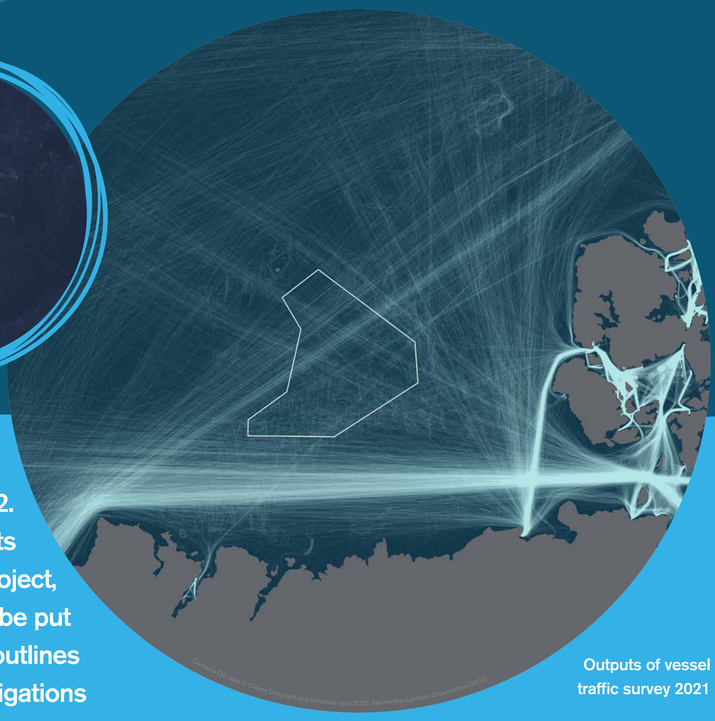
OFFSHORE MITIGATIONS



Outputs of vessel traffic survey 2021

The offshore surveys were all completed in 2022. To reduce potential impacts that may arise from the Project, mitigations measures will be put in place. The below table outlines some of the proposed mitigations for the offshore impacts.

ELEMENT AFFECTED	POTENTIAL IMPACT	MITIGATION
▪ Marine mammals	Noise from pile-driving during construction	▪ Use Marine Mammal Observers (MMO). ▪ Soft-start piling to reduce potential underwater noise.
▪ Birds	Collision with turbine blades	▪ Use larger and more widely spaced turbines to decrease risk of collision. ▪ Blade clearance of at least 24.7m above sea level to reduce collision risks.
▪ Fish ▪ Shellfish	Sub-sea cable Electro-Magnetic Field (EMF)	▪ Bury cables to reduce the potential impact of EMF.
▪ Commercial fisheries ▪ Boat users	Gear damage from cable snagging	▪ Bury cables and conduct burial risk assessment.
▪ Commercial fisheries ▪ Boat users	Disruption from construction in Project area	▪ Distribute Notice to Mariners for effective communication of Project works in the area. ▪ Construct in sections to avoid total exclusion ▪ Allow vessels to transit area after construction. ▪ Results from data collected show that very few vessels pass through the windfarm site.
▪ Aviation ▪ Military ▪ Commercial fisheries ▪ Boat users	Collision with turbine structures	▪ Apply construction safety zones up to 500m around structures during construction activities. ▪ Inform Civil Aviation Authority (CAA) of locations, heights and lighting status of the wind turbines, including dates of construction.
▪ Visual impacts	Artificial light pollution	▪ Avoid excess lighting/ minimise lighting, where feasible. ▪ Locate turbines at least 25km offshore.
▪ Marine archaeology	Impact on marine archaeology	▪ Avoid identified seabed heritage assets by a minimum of 30m.

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ONSHORE MITIGATIONS

All of the onshore surveys were completed in May 2023. To reduce potential impacts that may arise from the Project, mitigations measures will be put in place. The below table outlines some of the proposed mitigations for the onshore impacts.

ELEMENT AFFECTED	POTENTIAL IMPACT	MITIGATION
▪ Traffic and access	Damage to roads and road closures	▪ Implement Traffic Management Plan. ▪ Use dedicated haul roads to avoid using main roads. ▪ Undertake road repairs as required.
▪ Geology ▪ Hydrology	Impact on sensitive areas	▪ Avoid sensitive areas, such as peatland and designated areas.
▪ Freshwater ecology	Impact on freshwater fish	▪ Horizontal Directional Drill (HDD) under major river crossings.
▪ Onshore ecology	Impact on terrestrial ecology	▪ Avoid sensitive areas and designated sites. ▪ Adhere to a Species and Habitat Protection Plan (SHPP). ▪ Ensure a qualified Ecological Clerk of Works (ECoW) presence at sensitive locations.
▪ Landscape and visual	Visual impact of substation and cables	▪ Substation will be behind a bund. ▪ Screening and planting. ▪ Underground cables.
▪ Landscape and visual	Artificial lighting	▪ Sensor controlled lighting. ▪ Substation will be behind a bund. ▪ Screening and planting. ▪ Avoiding unnecessary lighting.

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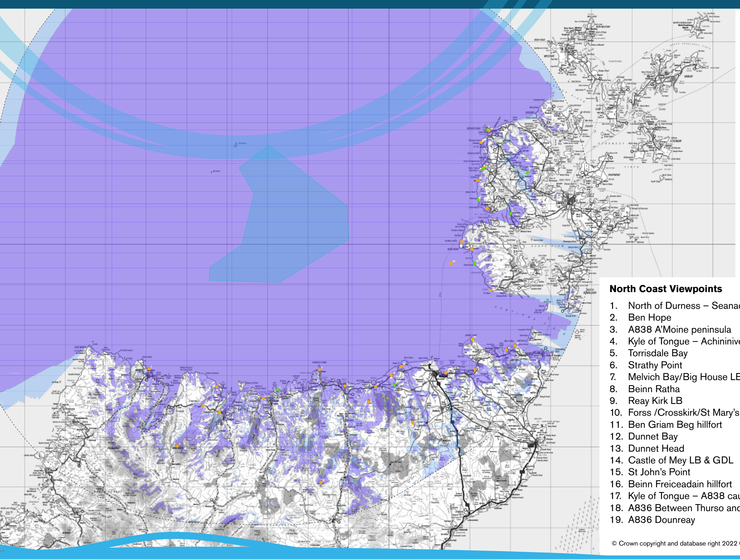

Zone of Theoretical Visibility

- Option Agreement Area
- Hub Height ZTV
- 60km Study Area
- Blade Tip ZTV
- Cultural Heritage Viewpoints
- North Coast and Orkney Viewpoints

North Coast Viewpoints

1. North of Durness – Seanachaisteal
2. Ben Hope
3. A838 A'Moine peninsula
4. Kyle of Tongue – Achininiver beach
5. Torrisdale Bay
6. Strathy Point
7. Melvich Bay/Big House LB
8. Beinn Rattha
9. Reay Kirk LB
10. Forss /Crosskirk/St Mary's Chapel
11. Ben Griam Beg hillfort
12. Dunnet Bay
13. Dunnet Head
14. Castle of Mey LB & GDL
15. St John's Point
16. Beinn Freiceadain hillfort
17. Kyle of Tongue – A838 causeway
18. A836 Between Thurso and Castletown
19. A836 Dounreay

Orkney Viewpoints

20. Scrabster-Stromness Ferry
21. Rackwick Bay
22. Path to Old Man of Hoy
23. Tor Ness, Hoy
24. Warebeth
25. Yesnaby – Brough of Bigging
26. Bay of Skaill
27. Marwick Head Kitchener Memorial
28. Earl's Palace Birsay, Brough Road

Viewpoints for Wirelines Only

A. Borve Castle
B. Cnoc Freiceadain long cairns
C. Sneuk Head
D. Black Craig
E. Brough of Birsay Car Park
F. Knowes of Trotty / WHS West Mainland Sensitive Area
G. Skara Brae – at the east side of the settlement
H. Skara Brae – at gate on north side of visitor centre
I. Hall of Clestrain – top of access track

Note:
The ZTV is calculated to turbine tip height (359.52m) and Hub height (200m) from a viewing height of 2m above ground level. The terrain model assumes bare ground and does not take into account the potential screening effects of vegetation and buildings. It is derived from OS Terrain 50 and 5 height data. Earth curvature and atmospheric refraction have been taken into account.

VISUAL IMPACTS

The map above illustrates the zone of theoretical visibility (ZTV) which is a computer-generated tool that establishes the likely maximum extent of the visibility of the proposed windfarm. The map also shows the key viewpoints agreed with NatureScot, Historic Environment Scotland, Orkney Islands Council and The Highland Council. To see the most up-to-date visual information available, please speak to a member of staff.

The visual impact of the onshore substation is also being considered and mitigation measures are proposed to screen the substation using a combination of earth bunds and planting, as illustrated in the map.

- Substation
- Preferred onshore substation location
- Proposed bunding contours
- Planting - trees
- Planting - shrubs
- Existing woodland
- Existing vegetation to be removed

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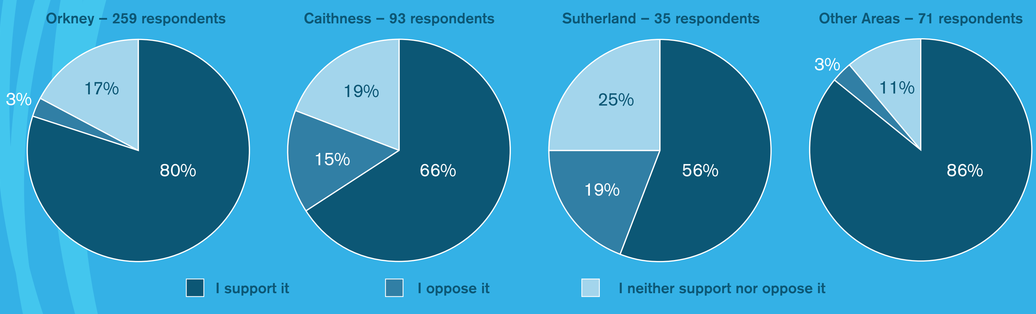
STAKEHOLDER CONSULTATION

The West of Orkney Windfarm project team continues to undertake extensive consultation with a broad range of stakeholders. This process began during preparation of the ScotWind bid to The Crown Estate Scotland. A summary of specialist meetings and consultation events that have been undertaken since the site was awarded in January 2022 is provided below.

MONTH/YEAR	EVENT
January 2022	West of Orkney Windfarm site awarded
March 2022	Virtual public exhibition, including live Q&A sessions
May 2022	Pre-Application Consultation (PAC)
	Technical Working Groups established
June 2022	1st round of topic-specific consultee meetings
	1st round of community panels (Orkney, Sutherland, Caithness)
July 2022	Durness Highland Gathering, Sutherland
	Halkirk Highland Games, Caithness
August 2022	Dounby Show, Orkney
	Orkney County Show
September 2022	2nd round of topic-specific consultee meetings
November 2022	1st round of public consultation events x7
January 2023	3rd round of topic-specific consultee meetings
	2nd round of community panels (Orkney, Caithness, Sutherland)
February 2023	One-to-one socio-economic stakeholder interviews begin
May 2023	1st round of onshore and offshore PAC events x7
June 2023	2nd round of onshore PAC events x2

Over 450 community questionnaires have been returned and respondents' reactions to the Project by location are presented below:

How would you describe your reaction to the West of Orkney Windfarm?



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COMMUNITY CONSULTATION

The community questionnaire asked respondents about the impact that they felt the West of Orkney Windfarm might have on a range of factors, from the natural environment to their own quality of life. A summary of the output was presented at the project consultation events held in November and is available on the website. More detailed interviews were then held to explore in greater depth the issues raised through the questionnaire and at the events. The final consent applications will be accompanied by a Pre-Application Consultation (PAC) Report which will present the findings of this consultation along with how it has been used to shape the Project.

The table below shows a summary of the key questions asked and our actions in response to date.

YOU SAID	WE DID
Will you come to Orkney West Mainland?	Pre-Application Consultation event in Sandwick Hall.
Will you come to the Strathy/ Melvich area?	Pre-Application Consultation event in Strathy Hall.
Will you undertake STEM projects?	£900k funding of UHI STEM outreach programme.
Can you share more detail on the outcome of the Environmental Impact Assessment?	Details added to online display materials and at subsequent consultation events. The full EIA Report will be published alongside our submitted consent applications.
Can you have events at times when working folk can attend?	Events scheduled across daytimes and evenings plus all materials replicated online. Dedicated phoneline, email address and freepost address for those who can't attend.
How are you ensuring that public are informed at all the various stages of the project?	Regular consultation events, leaflet drops, online updates, public notices, and ongoing engagement with Community Panels, local business forums and education providers.
What are you going to do about the impact on roads in Caithness?	Our Traffic Management Plan includes plans for: dedicated haul roads, delivering materials by sea where possible, and post-construction reinstatement and repair programmes.
What will the benefit be to local communities?	Creation of jobs and other training and supply chain opportunities. The Project is committed to a Community Benefit Fund to support communities in Caithness, Sutherland and Orkney for the duration of the Project.
Will there be local jobs?	Once built, the windfarm will require around 140 full-time, well-paid jobs for approximately 35 years.
Can you reduce my energy bills?	Offshore wind projects will reduce our reliance on fossil fuels and, ultimately, energy bills as the cost of producing electricity from offshore wind is significantly lower than producing it from gas. Communities will also be able to direct their Community Benefit Fund expenditure to reduce local energy bills, should they choose to.
What are you doing to protect birds?	Comprehensive assessment of potential impacts. Use larger and more widely spaced turbines to decrease the risk of birds colliding with blades. Blade clearance of at least 24m above sea level to reduce collision risks.
What are you doing to protect sea life?	Comprehensive assessment of potential impacts. Use Marine Mammal Observers (MMO) during construction. Soft-start piling to reduce potential underwater noise.
Will there be any overhead lines?	No, the Project will be connected to a new sub-station at or near Spittal using underground cabling.
What about our dark skies?	Avoid unnecessary lighting offshore and onshore. Use sensor-controlled lighting at sub-station to minimise times lights are on.

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COMMUNITY BENEFIT

Community benefit funds (CBF) are voluntary schemes created by developers to help local communities to benefit from commercial developments. The West of Orkney Windfarm is developing a CBF which will be available when the windfarm starts generating power in 2029. The CBF will be shared across communities in Caithness, Sutherland, and Orkney. Engagement with local communities will ensure that the fund is managed effectively and fairly. Discussions to date suggest a broad range of priorities from short-term to longer term strategic goals, as outlined below:

SUGGESTED PRIORITIES FOR COMMUNITY BENEFIT FUNDING		
SHORT TERM	**MEDIUM TERM**	**LONG TERM**
Supporting existing local initiatives, e.g. through sponsorship	Digital connectivity	Natural capital
Local business grants	Affordable housing	Community ownership
Support for energy bills	Sustaining communities	Sustaining the fund after the windfarm

In the meantime, the West of Orkney Windfarm has been involved in sponsoring some community events, such as supporting students from Kirkwall Grammar School to attend a Discover Engineering course and Orkney Athletics and Running Club for equipment in preparation for the Island Games 2025.

The West of Orkney Windfarm are keen to hear your views! If you have any further suggestions on how the CBF can benefit your community, please scan the QR code and complete the online form.

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INVESTING IN SCOTLAND

- Targeting 60% UK content of which 40% will come from Scotland
- Committing £140m during the initial development phase to develop the supply chain.
- Committing £900,000 along with other developers to expand the University of the Highlands and Islands (UHI) schools Science Technology, Engineering and Mathematics (STEM) outreach engagement programme.
- Exclusive EMEC innovation partnership around next generation technologies.
- Multi-million-pound contracts awarded to local companies.
- Agreement to create an operations and maintenance base at Scrabster Harbour, which will create ~140 full-time jobs for 35 years.
- Working with Orkney Islands Council to develop Scapa Deep Water Quay.

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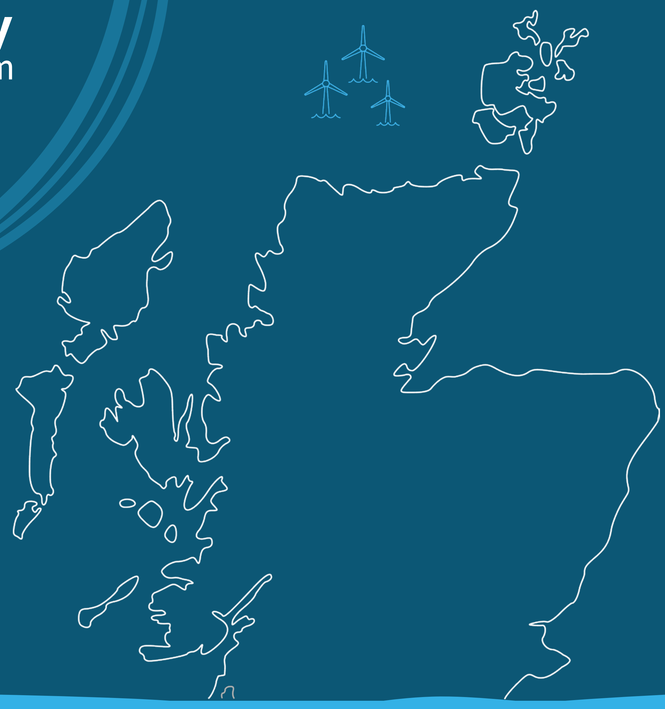

WHAT'S HAPPENING NEXT?

May 2023

First round of onshore and offshore Pre-Application (PAC) events.

June 2023

Second round PAC events.

If you wish to respond directly to West of Orkney Windfarm, please write to Offshore Wind Power Limited by Friday 30th June 2023.

- Email: info@westoforkney.com
- Postal address: Freepost FCHANGE
- Phone: 01786 820 111

Summer 2023

Offshore consent application to be submitted to Scottish Ministers.

Autumn 2023

Onshore consent application to be submitted to The Highland Council.

2027

Onshore construction in Caithness is due to start.

Offshore construction to commence.

2029

First power generated.

Community Benefit Fund available when power generation begins.

Representations to relevant planning authority

Once the consent applications have been submitted, any representations should be made in writing to the Scottish Ministers for offshore elements and The Highland Council for onshore elements. Further details will be provided by the regulatory authorities, as appropriate.

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