

# Welcome

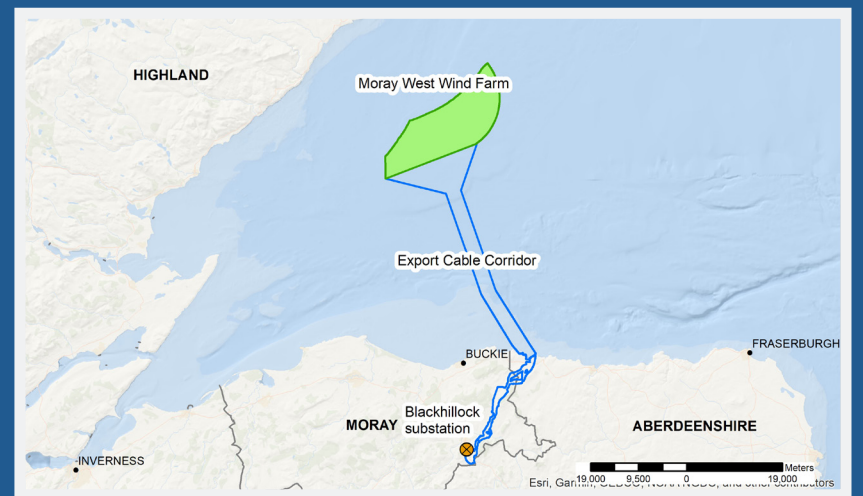
Thank you for visiting this exhibition room hosted by Moray West, where we are presenting the details of the onshore construction works for the **Moray West Offshore Wind Farm project**.

## The Moray West project will consist of:

- Up to **85 wind turbines**, although as a result of new technology, nearer to 60 will be installed.
- **~860MW** capacity of the wind farm
- Fixed seabed foundations
- Inter-array cables joining the wind turbines to the two offshore substation platforms
- Two export cable circuits connecting the offshore substation platforms with the onshore substation
- Onshore substation.

The cables to export the power from the turbines to the national electricity transmission system at Blackhillock substation by Keith are consented to come ashore between Sandend and Portsoy.

Moray West has secured consent from Aberdeenshire Council and Moray Council for the onshore works, which commenced in February 2022. In this exhibition room you can find key information on the onshore works and our anticipated construction timeline.



# Who We Are

**Moray Offshore Wind Farm (West)** Limited (known as Moray West) is a project being developed by **Ocean Winds**.

Ocean Winds has a proven track record of delivery in the UK, and is a majority partner in the neighbouring Moray East offshore wind farm. Moray East began generating in June 2021 and is now fully operational as Scotland's largest offshore wind farm, delivering multiple local and national benefits:

- Reducing CO2 emissions by more than 1.4 million tons per annum
- Upgrading local infrastructure, ports and fabrication facilities
- Utilising a global supply chain to benefit local ports - creating jobs and leading to further development in these ports.

The **Moray West** project will also deliver positive socio-economic impacts for the local community as well as contributing to Scotland's progress to meet legally - binding targets for net-zero emissions by 2045. Once constructed, the project will provide a secure, reliable source of energy as an important step in combating climate change and achieving net-zero emissions.

## Meet The Team



**Adam Morrison**  
**Project Director**

Adam is responsible for ensuring the Moray West project is consented, constructed and generating.



**Robin Stewart**  
**Project Development Associate**

Robin is leading much of the onshore planning work with Moray and Aberdeenshire Councils.



**Roger McMichael**  
**Stakeholder Manager**

Based near Inverness, Roger is working to ensure strong communication channels between the project and local communities.





*Typical landfall compound with two Transition Joint Bays ready for cable pull-in.*

# Onshore Works

Detailed onshore works are required to connect the offshore wind farm to the national electricity transmission network. We have secured planning consents from Moray Council and Aberdeenshire Council for these works.

## The onshore works will consist of:

- 'Landfall' Transition Joint Bays connecting the two offshore cables to the onshore cables above Broad Craig, between Sandend Beach and Redhythe Point. Landfall will be created by directional drilling under the shoreline for approximately 1km
- A new onshore project substation at Whitehillock
- Cabling for two underground circuits from landfall to Whitehillock
- Onshore underground cabling between Whitehillock substation and Blackhillock substation for connection to the National Grid.

The maps indicate the landfall and the corridor for the two onshore cables and working area. As the cable will be delivered in lengths of approximately 1km there will be approximately 25 Joint Bays along the corridor. Once installed the buried Joint Bays will have a manhole cover on the surface.

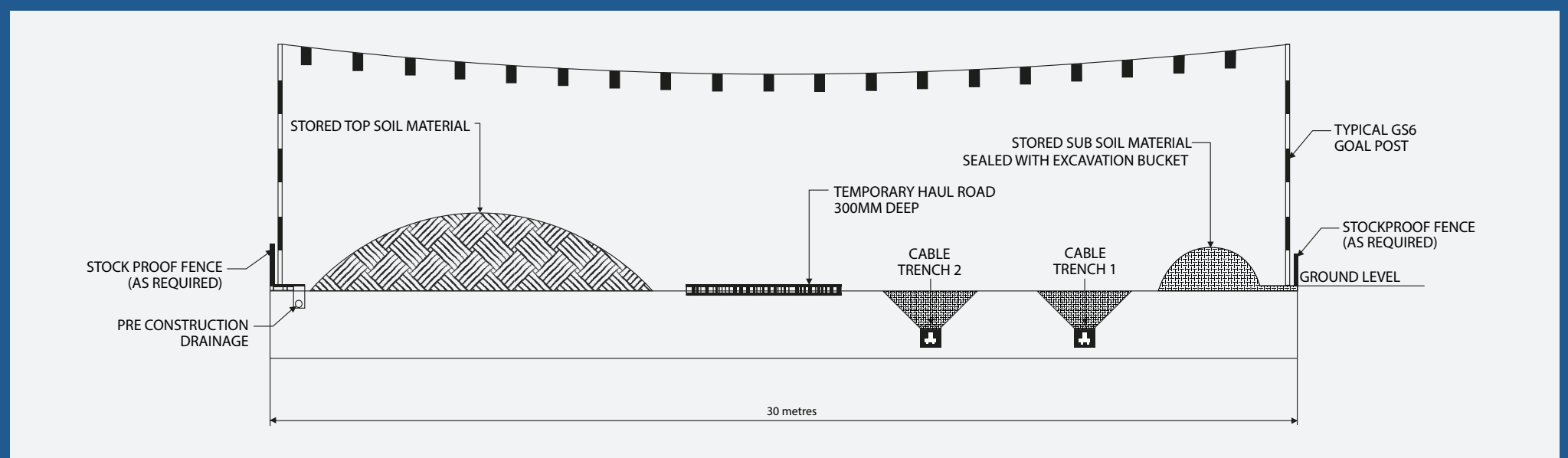




# Cable Corridor

The cable route corridor will run from the landfall Transition Joint Bay at Broad Craig to the new **Moray West** substation located at Whitehillock. It will then run on to the existing Scottish Hydro Electric Transmission Blackhillock substation.

The length between the landfall point and Blackhillock is approximately 31km, with a typical working width during construction of 20-40m.



*Typical cable corridor cross section.*

## Construction Traffic Management

Given the road network of the area that the cable runs through, a preliminary access route plan has been developed and discussed with Moray and Aberdeenshire Councils Roads Officers to agree a strategy in principle.

This strategy has identified access routes that certain traffic can and cannot use. We aim to maximise the use of the temporary haul road within the cable corridor and minimise the use of minor roads by construction traffic.

HGV traffic will predominantly use the three 'A' class roads that transect the cable route, plus the internal haul road within the cable corridor.



# Map of Onshore Works

## Landfall Point at Broad Craig

Directional drilling will occur at the at the Transition Joint Bays to install the underground ducting for the nearshore part of the offshore cable route. These onshore works will avoid the Site of Special Scientific Interest that runs along the coast, and will maintain access to the beach, paths and surrounding amenities. There will be a process of site restoration at the end of the construction works so that the only visible footprint of the project in the vicinity of Sandend will be will be the manhole covers of the two Transition Joint Bays at the landfall, which will be at ground level.

## Cable Corridor

The cable route corridor will run from the landfall Transition Joint Bay at Broad Craig to the new Moray West substation located at Whitehillock. It will then run on to the existing Scottish Hydro Electric Transmission Blackhillock substation. The length between the landfall point and Blackhillock is approximately 31km, with a typical working width during construction of 20-40m.

## Construction Compounds

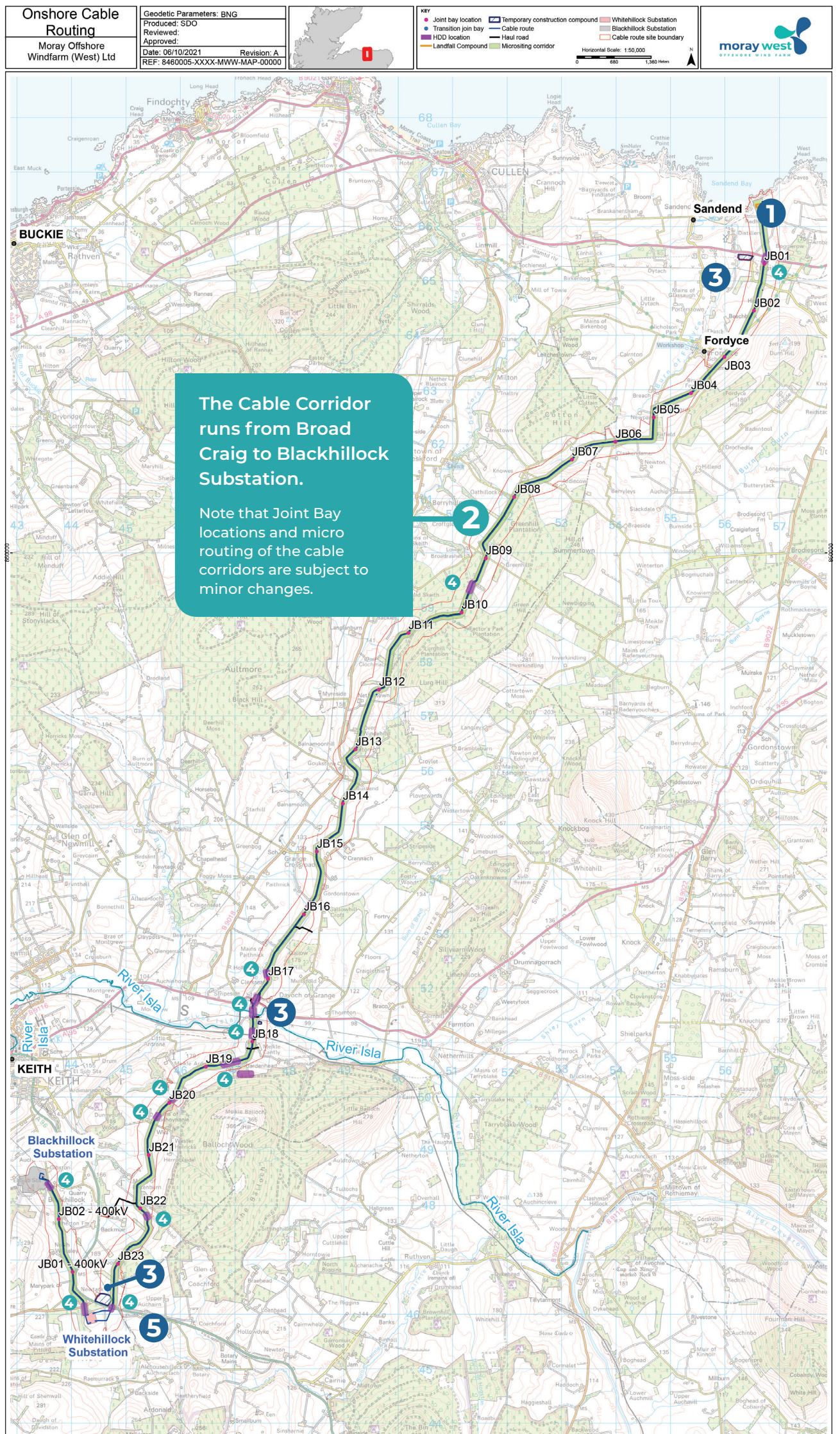
The temporary construction compounds are strategic hubs for core project management, such as engineering, planning and construction delivery with equipment storage. It is expected that four temporary construction compounds, including the landfall site, will be required along the cable route to support the onshore works.

## Horizontal Directional Drilling (HDD)

There will be a number of HDD locations which will be required to pass the cables under key landscape features such as main roads, railways, streams, water mains, and the River Isla. At each HDD location two small compounds are established on either side of the feature to be crossed.

## Whitehillock Substation

The new substation is required to step up the voltage to allow the Moray West project to connect to the National Grid transmission infrastructure at Blackhillock. The location, off the A96, has been chosen due to the proximity to the trunk road network and will be screened visually by the Pitlurg Wood shelter belt. The shelter belt will not be felled during construction. The substation will have an adjacent temporary construction compound.





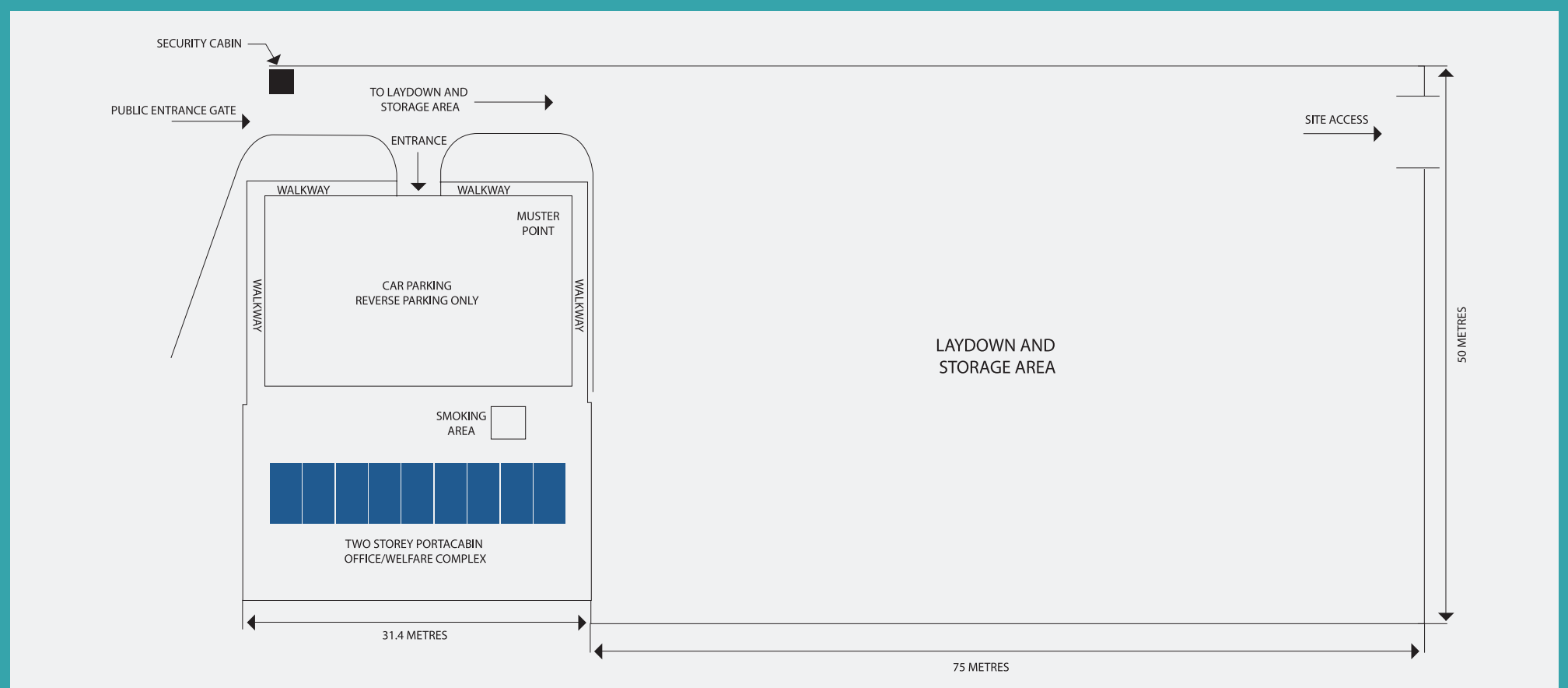
# Construction Plans

We are now commencing onshore works for construction of the cable corridor and the onshore substation at Whitehillock.

These works will be carried out by our contractors Nexans (for the cable corridor) and Siemens Energy (for the Whitehillock substation). More information on the onshore works are as follows.

## Temporary Construction Compounds

Temporary construction compounds are strategic hubs for core project management, such as engineering, planning and construction delivery. It is expected that up to four temporary construction compounds, including the landfall site, will be required along the cable route to support the onshore works.



*Indicative diagram of the main construction compounds. This diagram applies to the two main construction compounds. The other construction compounds will be smaller in size.*

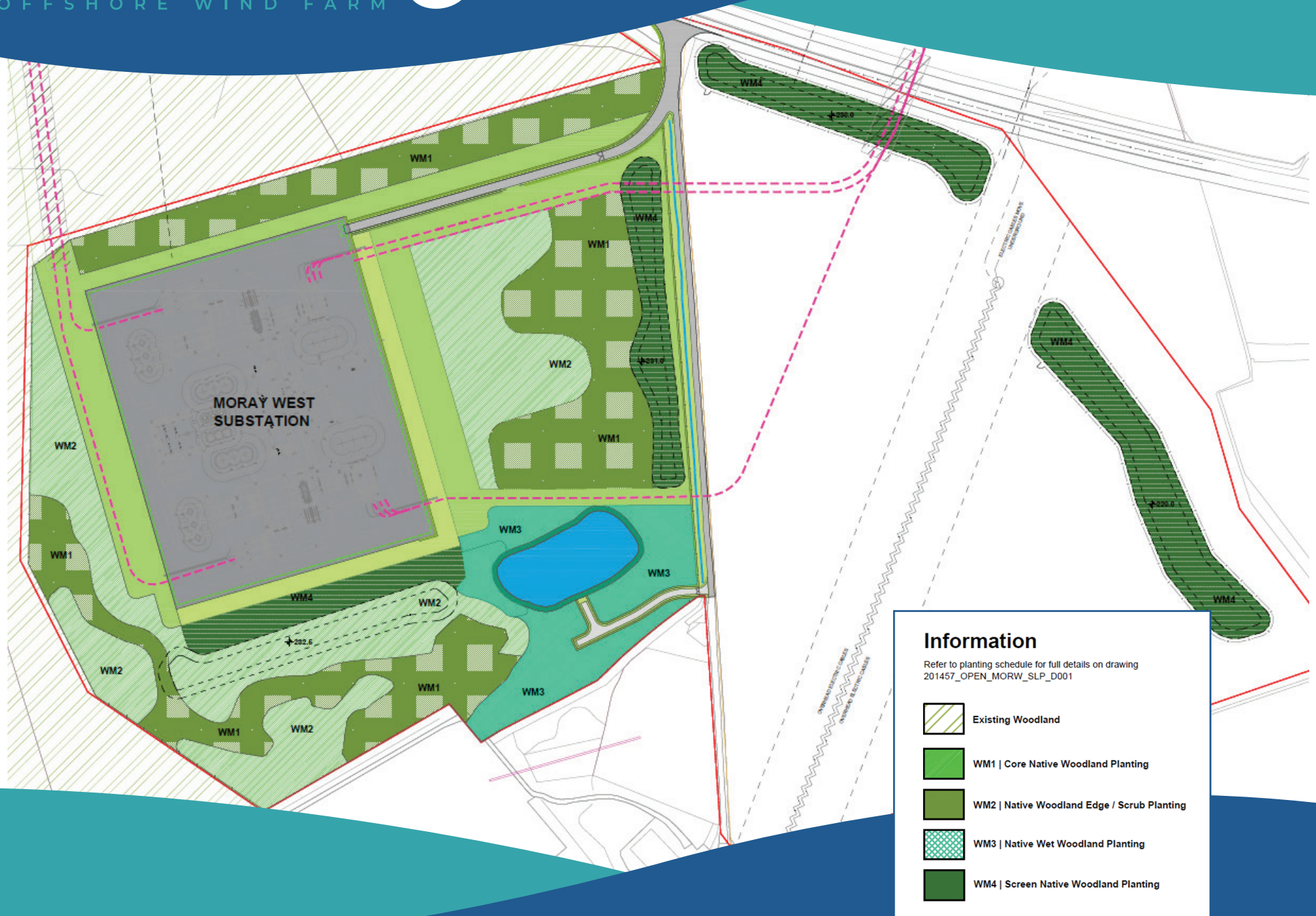


*Illustrative image of Horizontal Directional Drilling on temporary construction compound.*

## Horizontal Directional Drilling

In addition, there will be a number of Horizontal Directional Drilling locations which will be required to pass the cables under key landscape features such as main roads, railways, streams, water mains, and the River Isla.





*Layout of Whitehillock substation*

# Construction Plans continued...

## Whitehillock Substation

The Whitehillock substation will 'step-up' voltages from 220kilo Volts (kV) to 400kV to allow connection to the National Grid transmission infrastructure at Blackhillock. The detailed layout of the substation is shown above. The location has been chosen due to the proximity to the Trunk Road network and the visual screening that is provided by the Pitlurg Wood shelter belt. The shelter belt will not be felled during construction.

Ready access to the site is achieved from the adjacent A96 trunk road.

Environmental protections will be in place with daily environmental oversight by the **Moray West team**.

## Noise and Lighting

Noise modelling has been undertaken for the construction noise assessment and incorporates local topography. The standard working hours for the cable construction activities will be:

**07:00 - 19:00 Monday to Friday; and 07:00 - 13:00 Saturdays.**

At the Whitehillock substation site the standard working hours will be:

**08:00 - 19:00 Monday to Friday; and 08:00 - 17:00 Saturdays.**

Work is also permitted within Aberdeenshire from 07:00 - 13:00 on public holidays. Should any work need to be undertaken outside of the agreed hours, dispensation will be obtained from Moray Council and Aberdeenshire Council prior to the commencement of such works. These hours will be strictly adhered to unless an emergency demands continuation of works for engineering, safety or environmental reasons.

The majority of the works will be undertaken during daylight hours and therefore minimal artificial lighting is proposed.



# Anticipated construction timeline

Onshore works are commencing in early 2022, undertaken by our two primary contractors, Nexans and Siemens Energy.

Cabling specialists Nexans have been selected for the construction of the onshore export cables. Siemens Energy will construct the onshore substation at Whitehillock.

The indicative timeline for construction of the onshore cable corridor and substation is as follows.

## Cable Corridor

The cable route corridor will run from the landfall Transition Joint Bay at Broad Craig to the new Moray West substation located at Whitehillock. It will then run on to the existing Blackhillock substation. The length of the cable corridor is approximately 31km, with a typical working width during construction of 20-40m.

- Pre-commencement surveys were undertaken in January-February 2022. These surveys included archaeological, ecological and topographical studies, drainage plans, traffic management plans, and soil sampling.
- Construction of access points and construction compounds will commence in mid-March 2022.
- Enabling works, including fencing, the removal of top soil, installation of the temporary haulage road, surface water management, and Horizontal Directional Drilling (HDD) hardstandings will be carried out between June 2022 - February 2023.
- Main civil and installation works will commence in July 2022, with construction activity taking place simultaneously at several locations of the overall route up to completion in December 2023 with reinstatement of cable route completing by August 2024.

## March - May 2022: Construction compounds will be established

Construction compounds are strategic hubs for core project management, such as engineering, planning and construction delivery. Up to four construction compounds, including the landfall site, will be required along the cable route to support the onshore works.

## May 2022 - June 2023: Works at the Broad Craig landfall point

A temporary construction compound will be established between May and July 2022, before directional drilling commences from December 2022 - June 2023 to install the underground ducting for the nearshore part of the offshore cable route.

These onshore works will avoid the Site of Special Scientific Interest that runs along the coast, and will maintain access to the beach, paths and surrounding amenities. There will be a process of site restoration at the end of the construction works so that the only visible footprint of the project in the vicinity of Sandend will be the ground level access hatch covers to the landfall Transition Joint Bays.

## May 2022 - December 2023: Whitehillock Substation constructed

Enabling works for the new substation at Whitehillock will commence in February 2022, before main construction gets underway from May 2022. The new substation is required to step up the voltage to allow the Moray West project to connect to the national electricity grid transmission infrastructure at Blackhillock. The location, off the A96, has been chosen due to the proximity to the trunk road network and will be screened visually by the Pitlurg Wood shelter belt as well as new landscaping and screening planting that will be installed.

## July 2022 - December 2023: Horizontal Directional Drilling (HDD)

There will be a number of HDD locations which will be required to pass the cables under key landscape features such as main roads, railways, streams, water mains, and the River Isla during the main civil and installation works. These works will include the installation of the Joint Bays.



# Looking after our Environment

In constructing the **Moray West** project, we will strictly adhere to safeguards that will protect and maintain the natural environment in and around the site.

Our detailed management plans, agreed as part of our planning consent, ensure that we:

- Avoid tree felling as much as possible through the cable route
- Protect biodiversity, ecological sites and Sites of Special Scientific Interest
- Divert around known archaeological sites and features
- Avoid known areas of ground contamination
- Use Horizontal Directional Drilling to minimise the requirement to cross large watercourses.

## Landfall Point and Sandend Bay

The final consented project includes the landfall compound in an agricultural field above Broad Craig, between Sandend Beach and Redhythe Point. Moray West appreciates the significance of Sandend Bay to the many people who live and enjoy recreation in the area and we will ensure that access to the beach, paths and surrounding amenities will be undisturbed during construction works.

Directional drilling will occur at the finalised landfall compound area to install the underground ducting for the nearshore part of the offshore cable route. The location of these onshore works will avoid the Site of Special Scientific Interest that runs along the coast in this section and will be situated in the agricultural fields immediately inland of the coastal path, thereby maintaining use of this popular coastal path.

There will be a process of site restoration at the end of the construction works so that the only visible footprint of the project in the vicinity of Sandend will be a manhole cover to allow for access to the cable joint bay which will be situated below ground level.

## Private Water Supplies

A number of properties in the vicinity of the works are known to be supplied by Private Water Supplies (PWS). Moray West has undertaken detailed survey work with residents in order to manage and mitigate any potential risks to PWS. Properties identified as being potentially at risk of disturbance during construction works have been invited to take part in a monitoring programme throughout construction, and where required we will put mitigations in place. Throughout the works, we will closely monitor impacts on any PWS identified as being potentially at risk and will ensure that any issues as a result of the construction works are made good.



# Local Opportunities

**Moray West** is committed to supporting the Scottish and UK supply chain and will work in close partnership with local businesses and suppliers to ensure that opportunities are realised.

We are involved in a range of activities to develop a new offshore wind supply chain in the north of Scotland. This will benefit local suppliers and the surrounding economy, and will help to ensure that the project is delivered as competitively as possible.

We are keen to support local innovation and utilise existing skills to deliver this project as far as possible, and will deliver a comprehensive skills development programme. Working in partnership with a local education expert we will deliver a comprehensive Science, Technology, Engineering and Mathematics (STEM) programme in the region, and will develop our links with Moray College to support skills development.

If you are a potential supplier and would like to register your company's details with Moray West, please visit our website: [www.moraywest.com/supply-chain/supply-chain-registration](http://www.moraywest.com/supply-chain/supply-chain-registration)

We are also primary sponsors of the DeepWind offshore wind cluster which draws together suppliers, innovators and skills providers to service the development of offshore wind in the north of Scotland. Membership of DeepWind is free, and we encourage potential supply chain members to join up to access various events and initiatives to promote local supply chain opportunities: [www.offshorewindscotland.org.uk/deepwind-cluster](http://www.offshorewindscotland.org.uk/deepwind-cluster)

In October 2021, Moray West selected Buckie Harbour as its long-term Operations and Maintenance base. In addition, the harbour will be used to support the construction phase of the wind farm. We expect to begin generating power from the wind farm in 2024, supporting close to 60 staff in Buckie across onshore and offshore roles. We will advertise career opportunities on Ocean Winds LinkedIn and at our project website [www.moraywest.com](http://www.moraywest.com).



# FAQs

## Where is Moray West located?

The Moray West offshore wind farm is located in the Moray Firth in Scotland. The site is situated beside the Moray East and the Beatrice offshore wind farms.

## What stage is the project at?

Consent for the construction of the wind farm, the offshore and onshore export cables and onshore substation were granted across 2018 and 2019. Further to detailed consents from Aberdeenshire and Moray Councils for the onshore planning works, we have commenced onshore construction in February 2022.

## How many turbines will there be?

The project will consist of up to **85 wind turbines**, although as a result of new technology, nearer to 60 turbines will be installed.

The project will deliver a total installed capacity of **c.860MW**. This is enough to power approximately **640,000 homes**.

## What else will the project consist of?

Connection to National Grid at Blackhillock substation with a new substation at Whitehillock to step up voltage, both located within Moray.

### Additional elements will be:

- Underground cables from landfall at Broad Craig in Aberdeenshire to substations.
- A total underground export cable corridor route of 81km (50km offshore and 31km onshore).
- Up to **275km** of inter array cables connecting the turbines.

## What benefits will Moray West bring to the UK?

Moray West offers the deployment of a proven technology in a location with a recognised wind resource to deliver a low-cost, low-carbon supply of electricity for up to 640,000 homes, at a time when the UK urgently needs new generation capacity to maintain a secure, affordable supply of power.

The Moray West wind farm will export clean, green energy into the National Grid for the benefit of all UK consumers. The price of energy from offshore wind is now at record low levels helping to deliver value to households and businesses.

The project will also drive progress towards ambitious legislative targets to hit net-zero greenhouse gas emissions by 2045.

# FAQs continued

## **What happens if you need to undertake work outside normal working hours?**

Requests for any out of hours working will be made to the relevant Council. Such requests will include reasons and a description of the works. The Council may require additional mitigation of lighting, noise, traffic or other environmental effects of the out of hours activity.

## **Will there be a Community Benefit Fund?**

There will be no community benefit fund attached to the Moray West project.

However, as a responsible developer Ocean Wind is committed to working closely with the community throughout all phases of the project.

Through this project we will be able to deliver wide socio-economic benefits to local communities by upgrading local infrastructure, such as ports and fabrication facilities.

Moray East's global supply chain has flowed through two Scottish ports, leading to jobs and further development at the ports to enable them to participate in more offshore wind projects in the future.

Moray West will create similar, positive socio-economic impacts in local communities – utilising the local supply chain as far as possible and creating employment.

## **Is there opportunity for potential local suppliers to register interest to be a part of Moray West?**

Suppliers of any level can register their interest at the Moray West website:  
[www.moraywest.com/supply-chain/supply-chain-registration](http://www.moraywest.com/supply-chain/supply-chain-registration)

Provided you give us your consent, we will share your details with our Tier 1 suppliers to ensure that this project utilises local supply chains as far as possible.

## **Where will the onshore cables be?**

Underground cables will go from landfall at Broad Craig in Aberdeenshire to a new substation at Whitehillock and then to the existing Blackhillock substation.

## **Where will the cables connect to the National Grid?**

Connection to National Grid at Blackhillock substation with a new substation at Whitehillock to step up voltage, both within Moray.





## Moray West project timeline in context



If you have any questions or issues during the onshore construction works, our enquiry line is in operation **24/7** at **01343 250010** and our operatives will direct your query to the appropriate place.

Any other questions or inquiries can be sent to:  
**info@moraywest.co.uk**

You can also contact Moray West's Stakeholder Manager at:  
**roger.mcmichael@oceanwinds.com**  
or on **07717 367150**