Morven Offshore Wind Farm

Brochure

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Infrastructure in Scottish waters – public information day

Brochure

October 2025

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Glossary

Term	Definition
Array	A group of wind turbines placed together to harness wind energy. Morven has two array sites - North and South.
Cable landfall point	The point where offshore export cables are brought ashore and are connected to the onshore export cables.
Environment Impact Assessment (EIA)	An evaluation of how the planned project might affect the natural environment and people throughout its construction, operation, and decommissioning.
Grid connection location	The specific point at which the energy is transferred from the generating system to the national grid.
Habitats Regulations Appraisal (HRA)	This is a mandatory process to assess whether a plan or project will negatively affect a European site.
High Voltage Alternating Current (HVAC)	A high voltage electrical current, where the direction of the flow of charge changes back and forth at regular intervals. Most of the UK electricity grid is HVAC.
High Voltage Direct Current (HVDC)	A high voltage electrical current that flows in the same direction.
Land substation	The onshore equipment use to change the voltage of the generated power to be suitable for supply to consumers.
National Energy System Operator (NESO)	Public body with responsibility to plan, manage, and oversee the UK's energy network.

Introduction

Morven Offshore Wind Farm includes two array sites; Morven North and Morven South, which would be located off the coast of Aberdeenshire in the North Sea. It is being developed by Morven Offshore Wind Limited, a joint venture between Energie Baden-Württemberg AG (EnBW) and JERA Nex bp. The project was awarded an Option Lease Agreement during Crown Estate Scotland's ScotWind Leasing Round in 2022.

Once operational, we estimate that Morven has the potential to generate up to 3 gigawatts (GW) of renewable energy – enough to power the equivalent of around 3 million UK homes.

Morven requires both offshore and onshore elements to generate electricity and transmit it to the electricity transmission network (known as "the grid") operated by National Grid. The proposed infrastructure for Morven currently consists of:

- **The Morven North Offshore Wind Array Project (Morven North) –** entirely in Scottish waters, approximately 61km from the Aberdeenshire coast and covers an area of 511km^2. It would consist of up to 96 turbines and supporting foundations, inter-array and interconnector cabling and offshore substation platforms.
- **The Morven South Offshore Wind Array Project (Morven South) –** entirely in Scottish waters, approximately 86km from the Aberdeenshire coast and covers an area of 347km^2. It would consist of up to 95 turbines and supporting foundations, inter-array and interconnector cabling and offshore substation platforms.
- **Morven Hawthorn Pit Grid Connection Project (MHPGC) –** within both Scottish and English waters and includes offshore cables, underground onshore cables and a land substation. The Hawthorn Pit grid connection is proposed to be located in North East England, near Seaham. MHPGC will serve Morven North or Morven South.

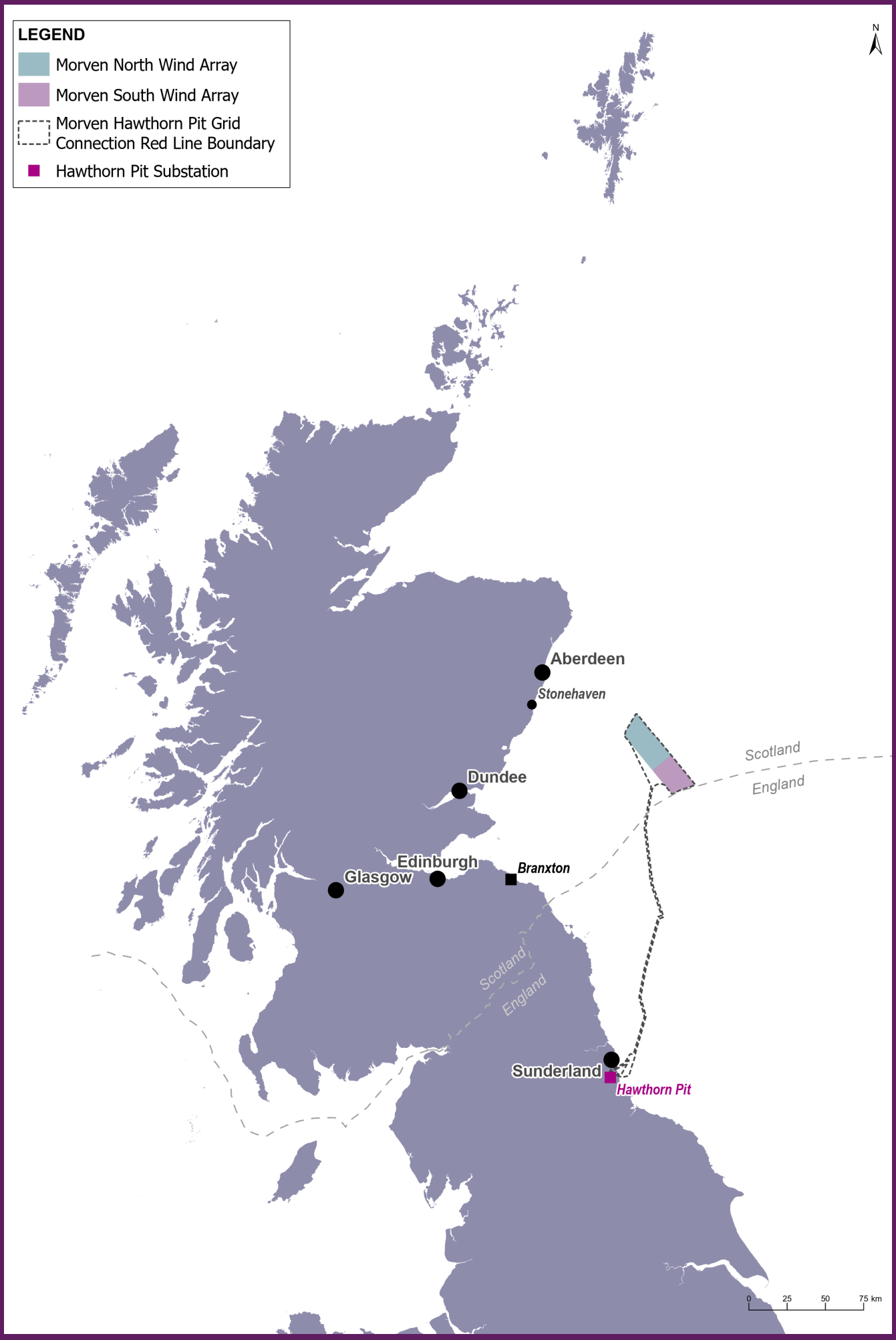
The National Energy System Operator (NESO) determines where projects, such as this, should connect into the National Grid. Through their Holistic Network Design (HND) process NESO has determined that the first connection should be at Hawthorn Pit.

A second connection will be required to transmit the remaining power generated by the wind farm array sites. The grid connection location for this has yet to be confirmed by NESO.

This brochure focuses on our proposed infrastructure within Scottish waters. For information on proposed infrastructure within England, please see: **www.morvenoffshorewind.com/morven-hawthorn-pit-grid-connection**

If you would like this consultation brochure or any of our other materials in a different format, please contact the Morven team by email **info@morvenoffshorewind.com** or phone **0800 669 6110.**

Project overview



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Morven North and Morven South overview

The Morven Site

During Crown Estate Scotland's ScotWind Leasing Round in 2022, EnBW and Jera Nex bp entered an Option Lease Agreement for The Morven Option Lease Agreement Site (known as the Morven Site), covering an area of approximately 860km^2. Since then, the site has been defined for further development, separating the Morven Site into two projects:

The Morven North Offshore Wind Array Project (Morven North)

- Distance from shore: 61km
- Area: 511km^2
- Water depth range: 62-75m

The Morven South Offshore Wind Array Project (Morven South)

- Distance from shore: 86km
- Area: 347km^2
- Water depth range: 64-76m

Morven North and Morven South timelines

2022

Site awarded

Award of Morven Site under the ScotWind 2021/22 Leasing Round.

2023

Scoping

The Scoping Report for the Morven Site was submitted to the Marine Directorate - Licensing Operations Team (MD-LOT) in July 2023.

A Scoping Opinion was received from MD-LOT in November 2023.

2024 2026

Environmental Impact Assessment (EIA)

The guidance provided in the Scoping Opinion along with continued engagement with key stakeholders has informed the approach to the EIA, which is currently under development.

2025

Public Information Day

An in-person event with more information and an opportunity to speak to the team.

2026

Submission of applications

Applications for relevant consents and licences for Morven North and Morven South to be submitted to MD-LOT.

There will be the opportunity to comment formally on each application.

2027

Decision

MD-LOT will inform us whether our applications have been approved.

If approved, construction would begin in the 2030s.

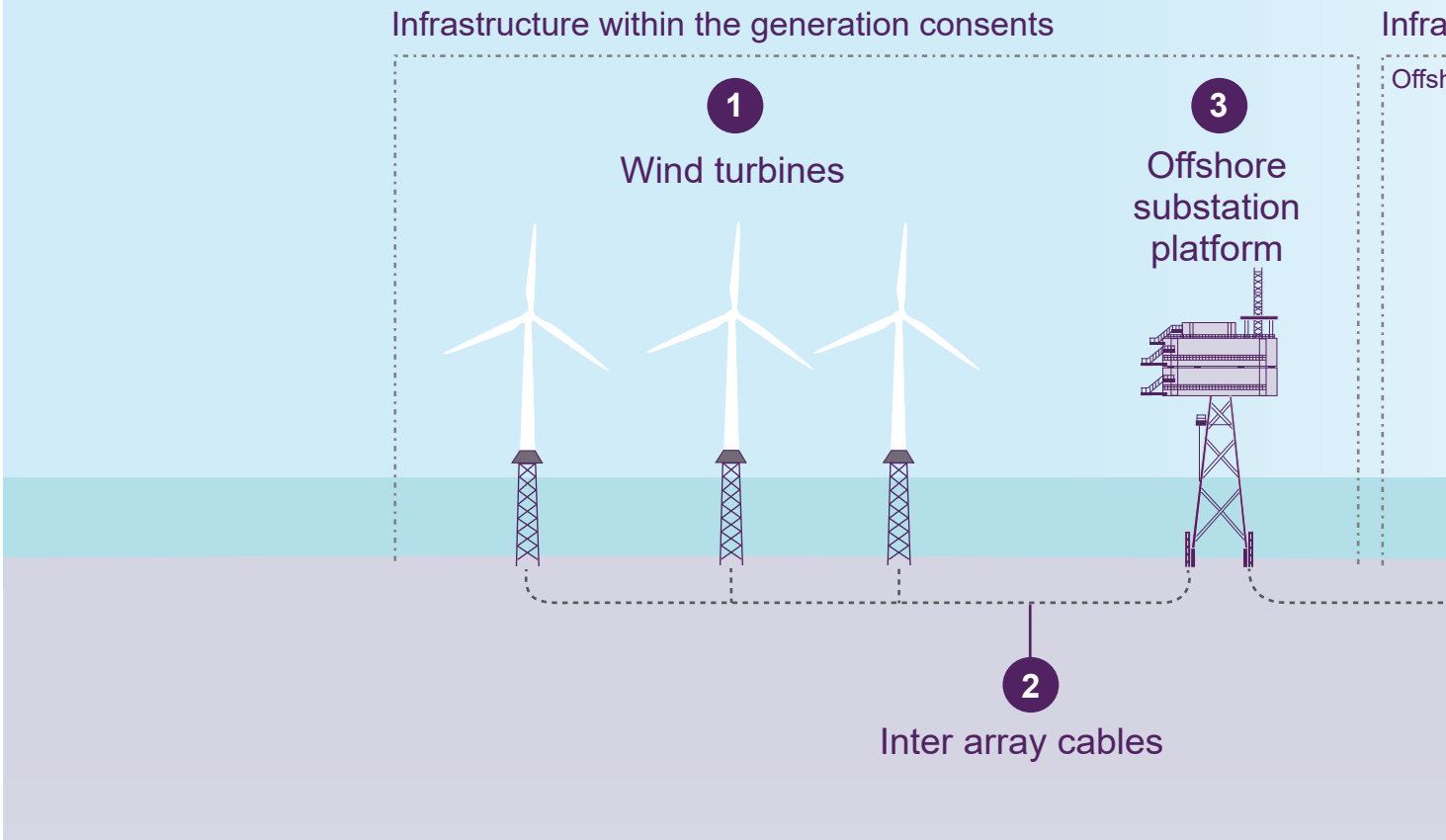
Morven North and Morven South infrastructure

Morven North and Morven South will include the following infrastructure.

Morven North

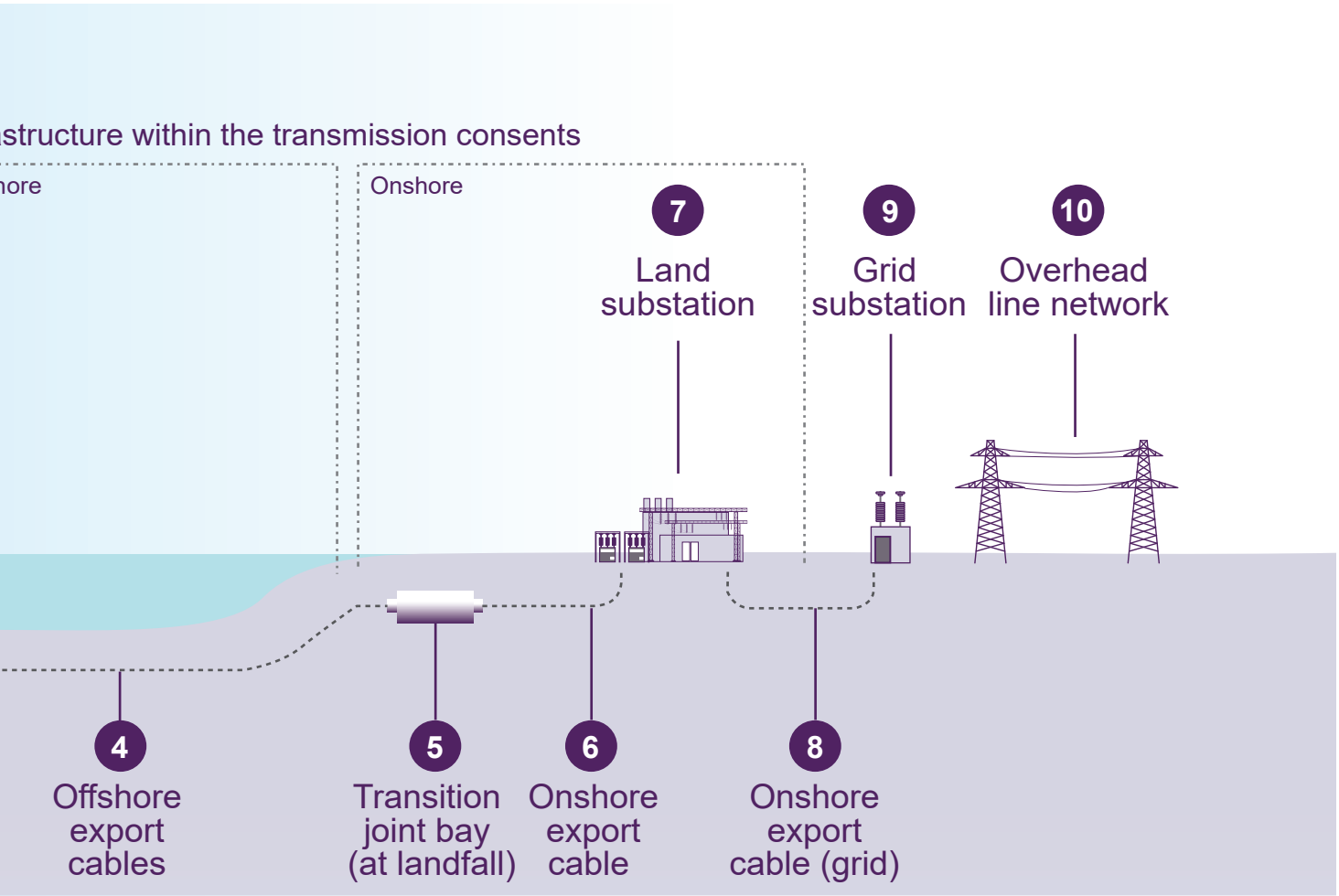
Maximum number of wind turbines	96
Wind turbine foundations	Fixed bottom, including monopile, or jacket foundation. The jacket foundation could be with either pin piles or suction caisson.
Inter-array cables	Up to 424km of cabling
Interconnector cables	Up to 484km of cabling
Offshore substation platforms	Up to four HVAC collector substation platforms and one HVDC convertor substation platform.
Offshore substation platform foundations	As per wind turbine options, with the addition of a gravity base structure.

Morven North and Morven South with transmission infrastructure



Morven South

Maximum number of wind turbines	95
Wind turbine foundations	Fixed bottom, including monopile, or jacket foundation. The jacket foundation could be with either pin piles or suction caisson.
Inter-array cables	Up to 420km of cabling
Interconnector cables	Up to 264km of cabling
Offshore substation platforms	Up to four HVAC collector substation platforms and one HVDC convertor substation platform.
Offshore substation platform foundations	As per wind turbine options, with the addition of a gravity base structure.



Wind farm lifecycle

The wind farm lifecycle includes construction, operation and decommissioning stages.

Construction

Design is in the early stages, therefore, the specific construction methods for Morven North and Morven South are still to be determined. Subject to approval, construction is estimated to begin in the 2030s. The phases and duration of construction will be confirmed as Morven North and Morven South progress. An indicative construction schedule will be included in the consent applications for the purposes of Environmental Impact Assessment (EIA).

There are a number of typical construction activities that we expect to carry out.

01

Seabed Preparation

Prior to installation, the seabed will be cleared of any obstacles to provide space for offshore cables, foundations and supporting infrastructure.

02

Foundation installation

The foundations for the wind turbines and offshore substation platforms will be installed first. This will be carried out using vessels or barges.

03

Cable installation

Inter-array and interconnector cables will be installed, connecting between wind turbines and to the offshore substation platforms.

04

Wind turbine installation

The wind turbine components will be transported from a port to the array area and installed onto the existing foundations by an installation vessel.

05

Commissioning

Once installation has been completed, commissioning will take place to make the wind turbines operational.

Operation and maintenance

During the lifetime of Morven North and Morven South there will be operation and maintenance (O&M) works. The routine activities may include inspections, cleaning and minor repairs. Non-routine activities could include replacing infrastructure, such as cables or other equipment. These activities will involve the use of vessels and possibly helicopters.

O&M will be fully assessed as part of the EIA in the Morven North and Morven South consent applications. A detailed O&M plan will be prepared for the approval of Scottish Ministers ahead of commissioning.

Decommissioning

The likely significant effects on the environment from the decommissioning of Morven North and Morven South will be assessed in the EIA of each project. Decommissioning is anticipated to include the removal of all structures above seabed where feasible and practicable. Buried infrastructure will typically not be removed. The decommissioning sequence will generally be the reverse of the construction and use similar types of vessels and equipment.

A Decommissioning Programme will be prepared for approval by Scottish Ministers ahead of construction. The detailed programme will consider industry best practice, guidance and legislation, and will be consulted on with relevant stakeholders. This programme will be updated during the lifetime of Morven North and Morven South to account for change in practice and new technologies.

Environmental Impact Assessment

We are undertaking an Environmental Impact Assessment (EIA) for Morven North and Morven South in support of the required consent and licence applications.

For each specific discipline (e.g. offshore ornithology, marine archaeology, fish and shellfish ecology etc.) the EIA:

- sets out the proposed study area;
- outlines topic specific policy, guidance and legislation;
- sets out the methodology for baseline characterisation and assessment;
- describes the baseline environment;
- evaluates the likely significant effects of the projects on the environment and other sea users; and
- provides mitigation measures designed to reduce effects (where required).

In July 2023, we submitted a Scoping Report to the Marine Directorate requesting a formal Scoping Opinion from the Scottish Ministers. The Scoping Opinion was received in November 2023. Both of these documents are available on our website, **www.morvenoffshorewind.com**.

The guidance provided in the Scoping Opinion and feedback from key stakeholders has been used to inform our approach to the EIA. The EIA will consider the following topics:

- Physical processes
- Benthic subtidal ecology
- Fish and shellfish ecology
- Marine mammals
- Offshore ornithology
- Commercial fisheries
- Shipping and navigation
- Marine archaeology
- Aviation
- Other sea users
- Socio-economics
- Climate change
- Major accident and disasters
- Human health
- Inter-related and ecosystem effects

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Habitats Regulations Appraisal

We are undertaking a Habitats Regulations Appraisal (HRA). This is a mandatory process to assess whether a plan or project will negatively affect a European site.

European sites include:

- Special Areas of Conservation which are designated for the conservation of certain habitats, plants or animal species.
- Special Protected Areas which are designated for the conservation of rare or vulnerable bird species.
- Rasmar sites which are Wetlands of International Importance.

HRA involves a staged process - screening to determine likely significant effects, an appropriate assessment if effects are likely, and derogation provisions if adverse effects on the integrity of European sites are concluded.

A HRA Screening Report was provided to the Marine Directorate in July 2023. The report identified the protected sites which will be assessed. Detailed modelling work is ongoing with respect to seabirds and marine mammals to fully understand any impacts on protected sites and results will be reported at the time of application.

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Transmission infrastructure in Scottish waters

NESO has given Morven Offshore Wind Limited its first point of interconnection to the electricity transmission network at the existing National Grid Hawthorn Pit substation in England.

Offshore cable corridor

To transport the electricity generated at Morven North or Morven South to the grid connection at Hawthorn Pit, we will have up to two offshore export cables. Two fibre optic cables will also be required but may be incorporated with the export cables. This permanent offshore infrastructure will be buried in the seabed, where possible.

For the section of the offshore cable corridor within Scottish waters, we will need to apply for a Marine Licence. We are undertaking an EIA for this grid connection as part of our Morven Hawthorn Pit Grid Connection Project.

The elements of the Morven Hawthorn Pit Grid Connection Project within England will be consented via a Development Consent Order under the Planning Act 2008.

You can find out more at:
www.morvenoffshorewind.com/morven-hawthorn-pit-grid-connection

The consenting process

We will require a number of different consents, licences and permissions in order to build and operate Morven North, Morven South and the transmission infrastructure:

Morven North and Morven South

For each project, we will require:

- Section 36 Consent which is granted by the Scottish Ministers under the Electricity Act 1989.
- Marine Licences which are granted by the Marine Directorate - Licensing Operations Team (MD-LOT) on behalf of Scottish Ministers under the Marine and Coastal Access Act 2009.

Transmission infrastructure in Scottish waters

For the offshore export cables within Scottish waters, we will require a Marine Licence.

Each application will be supported by the appropriate environmental assessments.

We anticipate that we will submit our consent applications in 2026. Once each application has been submitted, you will be able to view a copy of the application and make representations to MD-LOT.

The benefits of offshore wind

Energy security

Securing the UK's energy supply is a top national priority, and offshore wind is playing an increasingly important role in our electricity system. Offshore wind now supplies more than 17% of the country's electricity needs, supporting British homes and businesses with reliable power from our own resources.

The UK is one of the leading markets in the world for offshore wind, second only to China in terms of installed capacity. The seas around Britain are ideally suited for wind power and large-scale projects like Morven reinforce our leadership and help support affordable, homegrown energy.

Economic benefits

Offshore wind is delivering real economic benefits to the UK. Each major project boosts the economy by £2-3 billion, supports high-value manufacturing, port upgrades and supply-chain growth, and creates thousands of skilled jobs from Teesside to the Highlands. Britain's offshore wind workforce is expected to grow from around 32,000 today to as many as 100,000 by 2030 - meaning more opportunities for communities across the country.

Morven and other ongoing offshore energy projects will contribute to this growing sector further, strengthening UK energy security, creating new jobs and investment, and cementing Britain's status as a world leader in offshore wind.

Offshore wind and the UK supply chain

Many manufacturing jobs have been created by the industry including facilities such as Sumitomo's cable factory at Nigg representing a £350M investment.

Meanwhile, Teesside has seen the investment of hundreds of millions of pounds in facilities used for the fabrication of offshore wind foundations. Once fully operational, it is expected that around 750 direct jobs and around 1,500 further supply chain jobs will come from the SeAH manufacturing facility.

Supply chain: national, regional and local

Whilst it is too early to have any clear estimates for the potential economic impacts and opportunities that could arise from Morven, we have committed to spending over £1.1 billion in Scotland and £1.7 billion overall within the UK[1] and have registered on the Pathfinder platform to advertise relevant tender packages[2]. Even at this early stage Morven has supported the development of port infrastructure in Scotland at the Port of Leith. The redeveloped Port of Leith is already being used to underpin the buildout of offshore wind projects in Scotland. Greater clarity will be provided through the work of our supply chain engagement team and the detailed socio-economic impact assessment work we plan to undertake with the support of specialist economic consultants.

Throughout the development phase, we will engage closely with local, regional and national stakeholders, as well as local business and industry groups, to understand the potential of the UK supply chain and to identify where commercially viable opportunities for UK suppliers may exist.

This process will involve collaborative engagement with teams in relevant local authorities as well as officials from both UK and Scottish Governments.

The project is in the early stages of development, nevertheless, Energie Baden-Württemberg AG (EnBW) and JERA Nex bp are committed to engaging with, and supporting, the UK's growing offshore wind supply chain.

Future suppliers

If you would like to register your interest as a future supplier, you can register your interest to the project's supplier database at **www.m3wind.com/suppliers/**

Suppliers are also encouraged to register with the ORE Catapult's 'UK offshore wind directory' at **www.uowd.co.uk/**

Scan the QR code to head to the supplier registration page.

1. www.crownestatescotland.com/sites/default/files/2023-07/morven-scds-outlook-july-2023-update.pdf
2. energypathfinder.nstauthority.co.uk/projects?project-title=morven

Getting in contact

Take Part

The views of stakeholders and the community are important to us and will continue to be considered as we further develop and refine our plans.

You can share your feedback by:

Visiting our project website**: www.morvenoffshorewind.com** and submitting our online feedback form.

Sending an email with your feedback to**: info@morvenoffshorewind.com**

Sending a letter or hard copy feedback form, which will be available at events or by request to us in the post. You don't need a stamp. Our freepost address is**: Freepost MORVEN**

Please provide your feedback by **23:59 pm** on **30 November 2025** to ensure it is considered.

Contact the team:

If you have any questions about the project or this brochure, you can contact the team by:

Calling us:
0800 669 6110

Emailing us:
info@morvenoffshorewind.com

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