

# Morecambe Offshore Windfarm Generation Assets

Statutory consultation brochure  
April 2023



Visit:  
[www.morecambeandmorgan.com/morecambe](http://www.morecambeandmorgan.com/morecambe)  
or scan the QR code



Email:  
[hello@morecambeoffshorewind.com](mailto:hello@morecambeoffshorewind.com)



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# Contents

<b>About us</b>	04
The importance of renewable energy	04
<b>Our consultation</b>	05
How to respond	05
<b>Where to get more information</b>	06-08
<b>About the project</b>	11-13
<b>What the project will look like</b>	14
Fast facts: Wind turbine generators (WTGs)	15
Fast facts: Offshore substation platforms (OSPs)	15
Fast facts: Inter-array cables	15
Fast facts: Platform link (interconnector) cables	15
<b>Our work so far</b>	16
Ornithology	17
Socioeconomic, tourism and recreation	17
Marine mammals	17
Seascape, Landscape and Visual Impact Assessment (SLVIA)	18
<b>Interactions with other marine users</b>	
Commercial fisheries	19
Shipping and navigation	19
<b>Your feedback</b>	20-21
<b>What is Morgan and Morecambe Offshore Wind Farms: Transmission Assets</b>	22
<b>Next steps</b>	23
<b>Visualisations of the proposed Project</b>	24-25
<b>Glossary</b>	26
<b>Contact us</b>	27

# About us

Morecambe Offshore Windfarm (referred to throughout this brochure as ‘the Project’) is being developed as a joint venture between Cobra Instalaciones y Servicios, S.A. (Cobra), and Flotation Energy Limited.

- **About Cobra**

Cobra is a world leader in the development, construction and management of industrial infrastructure and energy projects, with more than 75 years of experience.

- **About Flotation Energy**

Flotation Energy is a United Kingdom-based offshore wind development company which has a growing project pipeline of offshore wind projects. The expertise of the Flotation Energy team lies in the project management and engineering of large infrastructure projects.

The Project is a proposed offshore windfarm located in the east Irish Sea. It's anticipated to generate a nominal capacity of 480 megawatts (MW) and produce renewable power for over **500,000 homes** in the UK. At its nearest point, the **windfarm site** is approximately 30 kilometres (km) from the shore of the Lancashire coast. The windfarm will help the UK to achieve its target of generating 50 gigawatts (GW) of power from offshore wind by 2030.

## The importance of renewable energy

The UK government has committed to ambitious plans that will put the country at the forefront of the fight for a greener future. As part of these plans, we as a society need to reduce greenhouse gas emissions to reach **Net Zero by 2050**.

To achieve this, we will need to change how we heat our homes, power our vehicles and, importantly, how we generate our electricity.

Renewable energy is central to supporting the UK's ambition to lead the world in combatting climate change, reducing our reliance on fossil fuels, and embracing a future where renewable energy powers our homes and businesses.

To meet our climate goals as a country, we need to quadruple our offshore wind generation – that means having 50GW of generating capacity installed and operating by 2030.



# Our consultation

We're now holding a public consultation on our latest proposals which will run for **47 days, from 19 April to 4 June 2023**. We're committed to an open and transparent consultation and would like to hear your views about the Project.

This is our second consultation on the latest design of the Project. This brochure provides an overview of the work we've carried out following the feedback we received during our first consultation in 2022. We're encouraging feedback on our proposals and the work we've undertaken so far.

See opposite for more information about how to provide your feedback. Please note that your feedback doesn't need to be limited to the areas covered in this brochure. We would like to hear any thoughts you may have.

Find out more by reading this brochure and viewing all consultation materials on our website: [www.morecambeandmorgan.com/morecambe](http://www.morecambeandmorgan.com/morecambe). This includes our [Preliminary Environmental Information Report \(or 'PEIR'\)](#), which forms the basis of this consultation.

We would also encourage you to come along to one of our in-person or online public consultation events. See pages 6-7 or visit [www.morecambeandmorgan.com/meettheteams](http://www.morecambeandmorgan.com/meettheteams) for more information about our events.

This stage of consultation is a statutory requirement of the [Development Consent Order \(or 'DCO'\)](#) process, in accordance with the [Planning Act 2008](#).

This project is categorised as a [Nationally Significant Infrastructure Project \(or 'NSIP'\)](#) under the Planning Act 2008. This means we're required to make an application for a DCO which grants us permission to build, operate and maintain the Project.

## How to respond

You can share any feedback you may have by using one of the following methods:



**Online consultation feedback map:**  
Visit [www.morecambeandmorgan.com/morecambe](http://www.morecambeandmorgan.com/morecambe) to see a map of our proposals that allows you to zoom in, pinpoint specific locations, and provide feedback.



**Online feedback form:**  
Visit [www.morecambeandmorgan.com/morecambe](http://www.morecambeandmorgan.com/morecambe) to complete an online version of our feedback form.



**Paper copy feedback form:**  
Pick up a paper feedback form at one of our in-person consultation events or from one of the deposit locations listed on page 8. Simply fill it out, fold it using the instructions provided, seal it and pop it in your local post box. There is no need to use a stamp.



**Send an email to:**  
[hello@morecambeoffshorewind.com](mailto:hello@morecambeoffshorewind.com)



**Write to us at:**  
**FREEPOST MORECAMBE GENERATION**

All responses to this consultation must be received via one of these methods by **midnight 4 June 2023**. Responses received after this date may not be considered.

# Where to get more information

We want to make sure you have access to all the information you need about the Project. During the consultation you can:



Visit our website: [www.morecambeandmorgan.com/morecambe](http://www.morecambeandmorgan.com/morecambe)

Here you can find more information and access our full suite of materials, including this brochure, online feedback form, online consultation feedback map, visualisations of what the windfarm could look like, PEIR and [PEIR Non-Technical Summary \(PEIR NTS\)](#).

Scanning the QR code will take you straight to the Consultation Hub on our project website, which is where all our consultation materials are digitally hosted.



## Attend a consultation event

We will be holding a series of public consultation events where you can meet our team, find out more about the Project, and ask any questions you might have. You can either come and see us in-person or join our online event, which will include a question-and-answer session. Full details opposite and on our website: [www.morecambeandmorgan.com/meettheteams](http://www.morecambeandmorgan.com/meettheteams)



## Visit one of our deposit locations

Throughout the consultation period (19 April to 4 June 2023) you can visit one of the deposit locations listed and pick up paper copies of our brochure, feedback form, PEIR NTS and [Statement of Community Consultation \(or 'SoCC'\)](#). Please note that opening times of deposit locations may vary so please refer to the venues' websites before visiting.

## Consultation events

These are drop-in events, meaning you can come along at any time between the hours stated below. There will be printed materials and members of the Project team there for you to talk to and find out more.



Please check [www.morecambeandmorgan.com/meettheteams](http://www.morecambeandmorgan.com/meettheteams) before attending a consultation event in case of any unforeseen changes.

Location	Date	Time
<b>Llanddulas Village Hall</b> Beulah Avenue, Llanddulas, Abergele LL22 8FH	Thurs 4 May	3pm to 7pm
<b>St Asaph Parish Church</b> 1 High Street, St Asaph LL17 0RG	Fri 5 May	3pm to 6pm
<b>Winter Gardens Blackpool</b> 97 Church Street, Blackpool FY1 1HL	Weds 10 May	3pm to 7pm
<b>Fylde Rugby Football Club</b> Woodlands Memorial Ground, Blackpool Road, Lytham St Annes FY8 4EL	Fri 12 May	3pm to 7pm
<b>Kingsfold Methodist Church</b> Hawksbury Drive, Kingsfold, Penwortham PR1 9EN	Sat 13 May	10am to 1pm
<b>Ramsey Town Hall</b> Parliament Square, Ramsey, Isle of Man IM8 1RT	Thurs 18 May	3pm to 7pm
<b>Bodelwyddan Village Hall</b> Ronaldsway, Bodelwyddan, Rhyl LL18 5TE	Fri 19 May	3pm to 7pm
<b>Douglas Borough Council</b> Town Hall, Ridgeway Street, Douglas, Isle of Man IM99 1AD	Fri 19 May	3pm to 7pm
<b>Neuadd Owen Village Hall</b> Cefn Meiriadog, St Asaph, Denbighshire LL17 0EY	Sat 20 May	10am to 1pm
<b>Hutton Village Hall</b> Moor Lane, Hutton, Preston PR4 5SE	Mon 22 May	3pm to 7pm
<b>Royal Clifton Hotel Southport</b> Promenade, Southport PR8 1RB	Weds 24 May	4pm to 8pm

### Pop-up events

These are smaller-scale events in areas of high footfall, but still a great way to meet the Project team and ask any questions you may have.



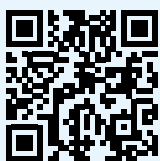
Location	Date	Time
<b>Llandudno Library</b> 48 Mostyn Street, Llandudno LL30 2RP	Weds 3 May	2pm to 5pm
<b>Rhyl Tourist Information Centre</b> The Village, West Parade, Rhyl LL18 1HZ	Thurs 4 May	10am to 1pm
<b>Amlwch Library</b> Parys Road, Amlwch LL68 9EA	Sat 6 May	10am to 12pm
<b>Barrow Park Leisure Centre</b> Greengate Street, Barrow-in-Furness LA13 9DT	Thurs 11 May	10am to 1pm
<b>Affinity Outlet Shopping Lancashire</b> Anchorage Road, Fleetwood FY7 6AE	Tues 23 May	10am to 1pm
<b>Preston Market</b> 28 Market Street, Preston PR1 2AR	Weds 24 May	10am to 1pm
<b>Waitrose &amp; Partners Formby</b> Three Tuns Lane, Formby, Liverpool L37 4AJ	Thurs 25 May	10am to 1pm
<b>JunctionONE Retail Park</b> Bidston Moss, Wallasey CH44 2HE	Thurs 25 May	3pm to 6pm

### Online event

If you can't make it to an in-person event, you can register to attend our online event by scanning the QR code below, or visiting [www.morecambeandmorgan.com/morecambe/en/meettheteams/](http://www.morecambeandmorgan.com/morecambe/en/meettheteams/). This event will include a presentation by the Project team and a question-and-answer session.



Location	Date	Time
This online event will take place on Zoom. Once you have registered to attend, you will receive an email confirmation with information about how to join this online event.	Tues 16 May	6pm to 7pm



## Deposit locations

These are publicly accessible venues where printed copies of the SoCC, consultation brochure, PEIR NTS and feedback form can be viewed. You will also be able to view our full PEIR digitally.



## Isle of Man

Location	Opening times
<b>Henry Bloom Noble Library</b> 8 Duke Street, Douglas, Isle of Man IM1 2AY	Mon-Weds and Fri: 8.30am to 5pm Thurs: 10am to 7pm Sat: 9am to 4pm
<b>Ramsey Town Library</b> Parliament Square, Ramsey, Isle of Man IM8 1RT	Mon-Thurs and Sat: 9am to 4:30pm Fri: 9am to 4:00pm

## North West

Location	Opening times
<b>Abbots Vale Community Centre</b> Barrow-in-Furness LA13 9PA	Mon-Fri: 9am to 8pm
<b>Barrow-in-Furness Main Public Library</b> Ramsden Square LA14 1LL	Mon-Thurs: 9:30am to 6pm Fri: 9:30am to 5pm Sat: 10am to 4pm
<b>Egremont Community Centre</b> Egremont Mission, Guildford Street, Wallasey CH44 0BP	Mon-Fri: 9am to 4pm
<b>Penwortham Town Council and Community Centre,</b> Kingsfold Drive, Penwortham, Preston PR1 9EQ	Mon-Thurs: 10am to 3pm Fri: 10am to 12pm
<b>Preston City Council</b> Town Hall, Lancaster Road, Preston PR1 2RL	Mon-Weds and Fri: 9am to 5pm Thurs: 10am to 5pm
<b>Southport Library</b> Lord Street, Southport PR8 1DJ	Mon-Fri: 10am to 5pm Sat: 10am to 2pm

## North Wales

Location	Opening times
<b>Amlwch Library,</b> Parys Road, Amlwch, Anglesey LL68 9EA	Tues: 9.30am to 12.30pm and 2pm to 5pm Weds, Fri, Sat: 9.30am to 12.30pm Thurs: 2pm to 7pm
<b>Bangor Public Library,</b> Gwynedd Road, Bangor LL57 1DT	Mon-Tues: 9:30am to 6:30pm Weds-Fri: 9:30am to 5pm Sat: 9:30am to 1pm
<b>Llandudno Library</b> 48 Mostyn Street, Llandudno LL30 2RP	Mon-Weds and Fri: 9am to 5:30pm Thurs: 10am to 7pm Sat: 9:30am to 3pm
<b>Rhyl Library, Museum &amp; Arts Centre</b> Church Street, Rhyl LL18 3AA	Mon: 9:30am to 6pm Tues-Fri: 9:30am to 5pm Sat: 9:30am to 12.30pm







# About the project

At its nearest point, the Project will be approximately 30km from the shore of the Lancashire coast. When fully operational, our windfarm is anticipated to generate a nominal capacity of 480MW and produce renewable power for over **500,000 homes** in the UK, as well as providing a viable alternative to fossil fuel powered energy generation plants.

This Project will play a key role in tackling climate change by:

- Generating low carbon electricity from an offshore windfarm in support of the decarbonisation and security of the UK electricity supply.
- Optimising generation capacity within the constraints of available sites and grid infrastructure.
- Delivering a significant volume of offshore wind in support of the UK Government's Net Zero by 2050 target and commitment to deliver up to 50GW of offshore wind by 2030.
- Contribute to achieving the aims of the UK's [Energy Security Strategy](#).

Our aims are also to:

- Co-exist and collaborate with other activities, developers and operators to enable the balance of different users.
- Contribute to the local, regional and national economy by providing investment, as well as employment and new infrastructure during all phases of the Project.
- Continue to drive down technology and development costs to help provide low-cost energy to consumers and provide community benefits to help contribute to the fight against fuel poverty.
- Align with the key drivers in current and planned updates to national policy.

The exact layout of the Project's infrastructure is still being developed and will not be finalised until the Project has been granted consent by the [Planning Inspectorate](#) and Secretary of State for the [Department for Energy Security and Net Zero](#). Due to the complexity of the Project, many details will likely remain unknown to us at the time of submitting our application, including the:

- Precise number, location and configuration of the wind turbine generators (WTGs), offshore substation platforms (OSPs) and any associated development.
- Type of foundation to install the turbines and any associated development.
- Exact height of the tip of the turbine rotors and the diameter of the rotors.

Visit [www.morecambeandmorgan.com/morecambe/en/consultationmap](http://www.morecambeandmorgan.com/morecambe/en/consultationmap) or see pages 12-13 for a map.



# About the project

## Morecambe Offshore Windfarm Generation Assets

is a joint venture between Cobra Instalaciones y Servicios, S.A. (Cobra) and Flotation Energy Ltd to develop a windfarm in the Irish Sea.

**Morecambe Offshore Windfarm Generation Assets** is the focus of this brochure and this consultation. All consultation responses should relate to this Project **only**. If you would like to provide feedback on any of the other **Crown Estate Leasing Round 4** developments, please refer to their respective websites.

### Choosing the right location

We undertook an exercise which considered the technical and environmental constraints of the areas offered by the Crown Estate in its Leasing Round 4 process. This was followed by detailed analysis, informed by engineers, planners, legal, and environmental professionals, whose expertise was drawn upon throughout the process. To date, some key design decisions have been made through the site selection process, ongoing engagement, and stakeholder feedback, for example:

- The windfarm site boundary has been designed to co-exist with existing oil and gas infrastructure and its operations, and therefore limits overlap with other marine users.
- The windfarm site has been located outside of any environmentally designated site.

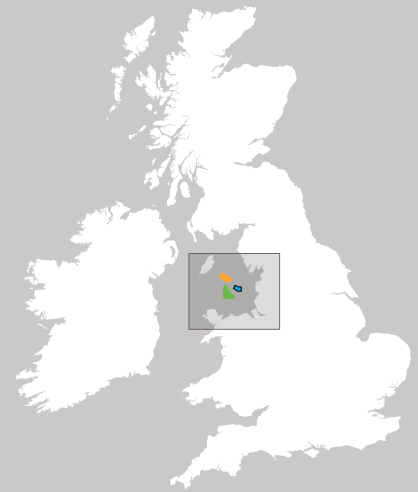
Further information is provided in chapter 4 (Site Selection and Assessment of Alternatives) of the PEIR. The Project design process will continue to evolve through technical studies and feedback received from communities and stakeholders throughout this consultation.

## Other neighbouring Crown Estate Leasing Round 4 developments:

**Morgan and Morecambe Offshore Wind Farms: Transmission Assets** refers to the offshore and onshore assets that will be used to transport electricity from the Morgan and Morecambe Offshore Wind Farms to the National Grid substation at Penwortham. See page 22 or visit [www.morecambeandmorgan.com/transmission](http://www.morecambeandmorgan.com/transmission) for more information.

**Morgan Offshore Wind Project Generation Assets** is a joint venture between bp and Energie Baden-Württemberg AG (EnBW) to develop a windfarm in the Irish Sea. Visit [www.morecambeandmorgan.com/morgan](http://www.morecambeandmorgan.com/morgan) for more information.

**Mona Offshore Wind Project** is another offshore windfarm being developed by bp and EnBW in the Irish Sea, off the coast of North Wales. Visit [www.morganandmona.com](http://www.morganandmona.com) for more information.



Morecambe area

125km<sup>2</sup>

Morecambe powering

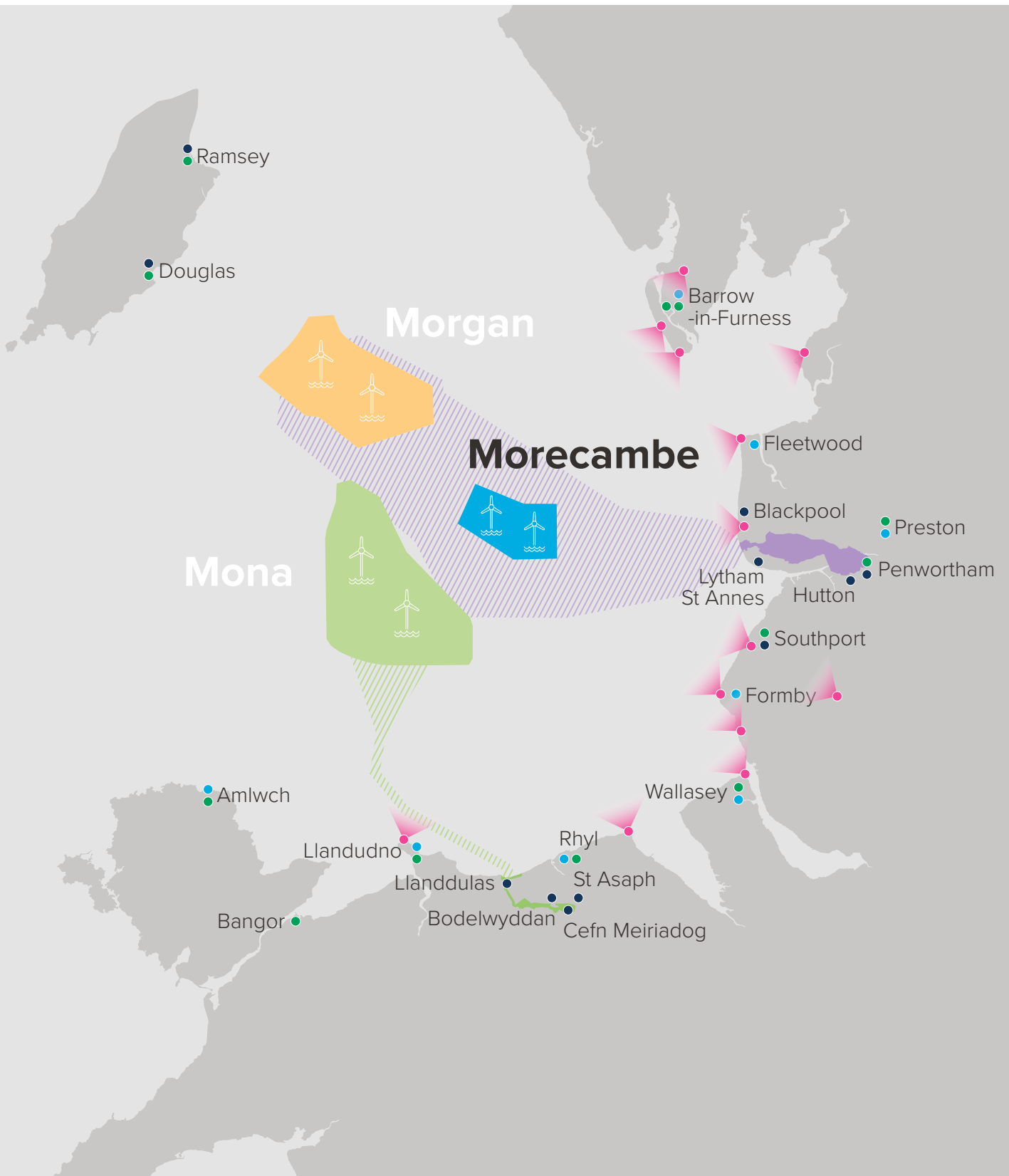
500,000  
homes

Location

30km  
from the coast

Water depth

18-40m



**Where to get more information**



Consultation events



Pop-up events



Deposit locations



Visualisations of what the windfarm could look like. See [www.morecambeandmorgan.com/morecambe](http://www.morecambeandmorgan.com/morecambe) to view.



# What the Project will look like

We expect that the Project will comprise of the following elements:

- Up to 40 wind turbine generators (WTGs)
- Up to two offshore substation platforms (OSPs)
- Platform link (interconnector) cables
- Inter-array cables

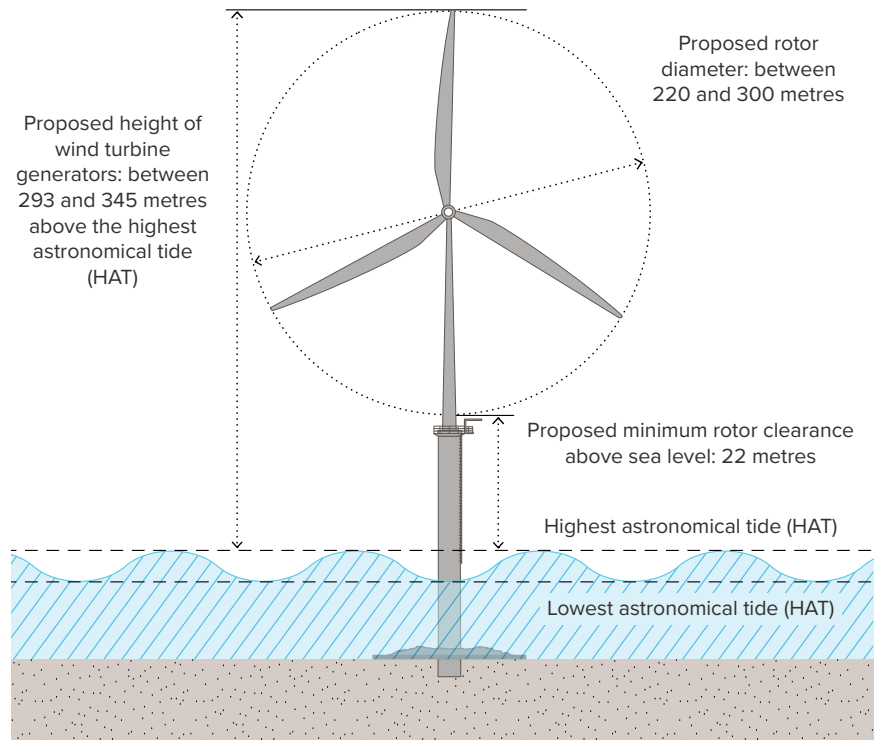
WTGs and OSPs will be located within the offshore windfarm site and be fixed to the seabed with foundation structures.

Inter-array cables will connect the WTGs to each other and carry renewable energy to the OSPs. The OSPs will convert the power to a suitable voltage. This is then transferred into the electricity transmission network via the existing National Grid substation at Penwortham in Lancashire.

For more information about the transmission part of the project and why a separate DCO application is needed for this, visit [www.morecambeandmorgan.com/transmission](http://www.morecambeandmorgan.com/transmission) or see page 22.

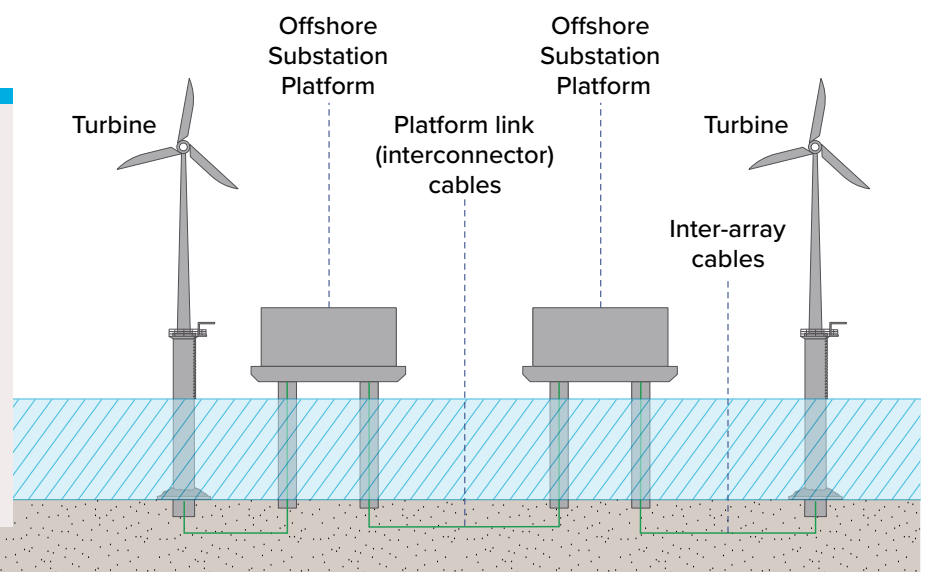
WTGs will be set out in rows. The minimum space between each individual WTG in a row is estimated to be around 990 metres (0.99 kilometres). The minimum space between each row of WTGs is estimated to be around 1,760 metres (1.76 kilometres).

The seabed conditions and the presence of existing infrastructure will influence the final layout of the WTGs within the site boundary. This may lead to an increase in the gaps between turbines and rows (as described above).



Indicative diagram of what a typical WTG could look like. Actual design may differ. The above image is not to scale and for illustrative purposes only.

To see visuals of what the Project could look like from various points along the shore, visit [www.morecambeandmorgan.com/morecambe](http://www.morecambeandmorgan.com/morecambe). Alternatively, see pages 24-25 for more information. Please be aware that these visuals aren't to scale and they are for illustrative purposes only. The visualisations have been created assuming excellent long-range visibility, rather than typical prevailing conditions. The actual design of the WTGs and windfarm may differ.



The components of Morecambe Offshore Windfarm Generation Assets

This information is based on our current understanding of the Project and will be refined ahead of submitting our DCO application. These numbers are assuming the generation of 480MW of electricity.

#### Fast facts: WTGs

- Proposed number of WTGs: **up to 40**
- Proposed rotor diameter: **between 220 and 300 metres**
- Proposed maximum tip height of wind turbine: **up to 345 metres above the highest astronomical tide (HAT)**
- Example rotor speed range: **between 6 and 10 revolutions per minute (RPM)**
- Minimum rotor clearance above sea level (HAT): **22 metres**

#### Fast facts: OSPs

- Proposed maximum number of OSPs: **2**
- Proposed maximum topside width ('topside' meaning the decks supported by the foundation structure on which equipment is installed): **55 metres**
- Proposed maximum topside length: **80 metres**
- Proposed highest point of topside (above HAT), excluding the helicopter landing pad and lightning protection: **65 metres**

#### Fast facts: Inter-array cables

These are installed to connect individual WTGs and also to connect the wind turbine generators to the OSPs.

- Proposed maximum width of disturbance due to the preparation, installation and burying of inter-array cables beneath the seabed: **25 metres**
- Proposed depth range for burying inter-array cables: **0.5 to 3 metres (target depth of 1.5m)**
- The maximum total length of inter-array cables is **110 kilometres**. At most, we anticipate **10%** of the cable length requiring protection due to ground conditions (11 kilometres).

#### Fast facts: Platform link (interconnector) cables

Should the project require two OSPs, platform link cables will be needed to connect each OSP to enable the transfer of electricity. They would also ensure that electricity transmission can continue in the unlikely event that a cable or OSP should unexpectedly fail.

- Proposed maximum number of cables (and trenches): **2**
  - Proposed maximum length of cable (per cable): **5 kilometres**
  - The maximum total length of platform link cables is 10km. At most, we anticipate **10%** of the cable requiring cable protection due to ground conditions (1km)
- For more information about how we plan to build the Project, please see our PEIR NTS and chapter 5 (Project Description) of our PEIR.

## Our work so far

In June 2022 we published a **Scoping Report** which set out what we understood at the time to be the Project's likely effects on the environment and how we would assess them. Our Scoping Report was followed by the Secretary of State's **Scoping Opinion**, which was provided in August 2022.

Since then, we've been carrying out a range of environmental assessments to better understand the potential impacts of the Project on the environment. We also continue to engage with stakeholders to understand in greater detail the area that we're proposing to work in.

Our environmental assessments are undertaken using a wide range of data sources, including project specific surveys. To date, we've undertaken the following surveys:

- **Geophysical surveys** – to distinguish the physical characteristics of the site (surface and subsurface).
- **Benthic surveys** – to identify and map any habitats. Video footage and a collection of sediment samples have been taken.
- **Aerial surveys** – to record any birds and marine mammals seen across the site. So far, we have processed a year's worth of data and have another year's worth of data that will feed into our final assessment.
- **Viewpoint photography** – to analyse the existing views in comparison to indicative views of the proposed Project.
- **Marine vessel traffic surveys** – two 14-day at sea surveys were undertaken to record vessel activity in the area around the Project.

Using the wide range of data gathered, we have produced a Preliminary Environmental Information Report (PEIR). The PEIR provides a summary of the Project, the site selection process, engineering design development and the key findings of the **Environmental Impact Assessment (EIA)** process to date.

The purpose of the EIA is to allow stakeholders to develop an informed view of the development, as required by The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations 2017).

The PEIR also covers a comprehensive range of environmental topics. It presents assessments and potential impacts that were specified within the Planning Inspectorate's Scoping Opinion, on behalf of the Secretary of State. Throughout our PEIR, we have set out how we have addressed the comments included in the Scoping Opinion. Assessments have been supported by a wide range of analysis, including:

- **Underwater noise modelling** – to understand effects, particularly in the construction phase during potentially noisy activity (such as piling).
- **Collision risk modelling** – to predict the number of birds that would be at risk of encounters with turbines or rotor blades.
- **Radar line of sight modelling** – to identify the radars likely to detect the Project.
- **Navigational risk assessment** – to identify and assess the hazards and risks affecting vessel navigation. This was undertaken alongside other neighbouring projects.

As described in chapter 6 of the PEIR (Methodology), all PEIR chapters provide an overview of the existing environment, followed by an assessment of the potential effects and associated mitigation during all phases of the Project.

Our assessment work to date has been guided and informed by engagement with a number of technical stakeholders. This will continue as the Project develops.



Cumulative effects with other plans and projects are also assessed when considered with the Project.

The assessments for most topics concluded that the Project will not result in significant effects, alone or when considering the Project alongside other activities, plans and projects. Certain mitigations identified will need to be agreed and further developed with stakeholders. For topics where significant effects have been identified, further analysis and assessments are being undertaken.

The findings are detailed in each chapter of the PEIR and have been summarised in the PEIR NTS, with information on some of the topics on pages 17-18.

### Ornithology

The assessment on seabirds during construction includes disturbance and displacement and indirect effects on habitats and prey species, including sensitive species such as the red-throated diver (pictured). Additionally, during the operation and maintenance phases, potential impacts also include collision risk.

No significant adverse effects were identified for the Project alone. This included any risk to collisions with turbines, which is assessed as no greater than minor, and not significant, for all species recorded in flight at the windfarm site. This includes the most sensitive species, such as gannet, kittiwake (pictured), common gull, herring gull, lesser black-backed gull and great black-backed gull.

The cumulative assessment, when including other plans and projects in the area, will be considered in more detail as the EIA progresses and when all data is available.

### Socioeconomic, tourism and recreation

Our assessment drew on a range of publicly available statistics for the local study area: Liverpool, Halton, Sefton, Wirral, Copeland, South Lakeland, Barrow-in-Furness, Blackpool, Fylde, Lancaster, West Lancashire, Wyre, Cheshire West and Chester, Denbighshire, and Flintshire, as well as the UK as a whole.

No significant effects on the tourism economy, recreational activities or community assets were identified.

Potential benefits will arise from an increase in expenditure, and a resulting boost for the economy during construction, operation and maintenance of the Project.

There's potential for the creation of employment opportunities during all phases, in particular during the construction phase of the Project.

### Marine mammals

Our work to date has enabled us to identify the most relevant marine mammals in the area, including harbour porpoise (pictured), bottlenose dolphin, common dolphin, Risso's dolphin, white-beaked dolphin, minke whale, grey seal and harbour seal.

Underwater noise modelling was carried out to better understand the impact of underwater noise effects on marine mammals.

Assessments found that, with mitigation for the Project alone, only 'minor adverse' and 'non-significant' effects to marine mammals would occur.

The cumulative assessment, when including other plans and projects in the area, will be considered in more detail as the EIA progresses and when all data is available.



## Seascape, Landscape and Visual Impact Assessment (SLVIA)

For the assessments, the study area included the English counties of Cumbria, Lancashire and Merseyside; a southern terrestrial area, including the Welsh counties of Flintshire, Denbighshire, Conwy, Gwynedd and the Isle of Anglesey; and a western offshore area, defined by the waters of the Irish Sea and the Isle of Man.

The assessments identified that most views of the Project are either distant and/or dominated by existing offshore windfarms. The areas with the most visual effects, which are deemed to be significant, are limited to areas along the Fylde and Sefton coastline.

Although there are localised effects on views from this section of the coast, the effects will only occur during infrequent periods of excellent, long-range visibility, and will not occur during most prevailing conditions.

The information provided in this brochure is by no means exhaustive or fully representative of all the work we've done. More detailed information about all the assessments we've carried out and the subsequent results can be found in our PEIR NTS and PEIR.





# Interactions with other marine users

We have conducted a range of assessments within our study area to see how our proposed windfarm site could possibly impact other users and industries. For example, commercial fisheries, oil and gas infrastructure, shipping and navigation.

Below we've provided an overview of the results for some of these assessments. More detailed information about the assessments carried out and the subsequent results can be found in chapters 13 (Commercial Fishing), 14 (Shipping and Navigation), 16 (Civil and Military Aviation and Radar) and 17 (Infrastructure and Other Users) of our PEIR and in the PEIR NTS.

## Commercial fisheries

Commercial fishing activity has been characterised using landings statistics, vessel monitoring, surveillance data, and engagement with the fishing industry. Based on an analysis of the location of the windfarm site, fishing activity is expected to be dominated by larger vessels potting for whelk, and to a lesser extent dredging for scallops.

With mitigation for the construction period, it has been assessed that the effects from the Project are minor. When considering other plans and projects in the area, further assessment will be undertaken.

The Project will continue to engage with stakeholders in the region related to commercial fisheries and explore how we can further mitigate any potential impacts.

## Shipping and navigation

In the study area, data shows that service vessels associated with existing offshore windfarms and oil and gas infrastructure account for a large proportion of vessel movements. Large vessels passing through the windfarm site are predominantly ferries and service vessels, and commercial cargo. Tanker routes are of low frequency in the windfarm site. Four principal operators were identified in the eastern Irish Sea through our assessments:

- **Isle of Man Steam Packet Company**, operating between Douglas, Liverpool and Heysham.



View over Douglas Harbour, Isle Of Man

- **Seatruck**, operating between Heysham, Liverpool, Warrenpoint and Dublin.
- **Stena**, operating between Liverpool, Heysham and Belfast.
- **P&O**, operating between Liverpool and Dublin.

Our assessments found that while our Project would affect the Liverpool to Douglas and Liverpool to Belfast ferry routes, only the Liverpool to Belfast route would require a small additional travel distance as a result of the Project. The impacts from the Project alone were assessed as not significant. However, mitigations have been identified to reduce these effects further.

When considering the Project with other plans and neighbouring projects, significant effects have been identified. Through ongoing assessments and continued engagement with stakeholders and regulators we will aim to implement suitable mitigation measures and explore possible additional measures ahead of developing our [Environmental Statement](#) and submitting our DCO application.



# Your feedback

We would like your feedback on the work we've undertaken on our Project to date. This is covered broadly in this brochure and in more significant detail in our PEIR NTS and PEIR.

Our PEIR covers a comprehensive range of environmental topics for which potential effects have been assessed. These have been listed below, with a corresponding chapter number in our PEIR where you can find more information. Please note that your feedback does not need to be limited to the areas listed on this page.

- **Marine Geology, Oceanography and Physical Processes** includes assessment on protected sites, features and habitats within the study area as well as processes such as waves and tides and sediment movement. See our PEIR NTS and chapter 7 of our PEIR.
- **Marine Sediment and Water Quality** considers both effects to the water column and the seabed. See our PEIR NTS and chapter 8 of our PEIR.
- **Benthic Ecology** considers effects to the habitats and species on the seabed. See our PEIR NTS and chapter 9 of our PEIR.
- **Fish and Shellfish Ecology** considers effects to species that live in the water column as well as those at the sea bed, including effects of noise. See our PEIR NTS and chapter 10 of our PEIR.
- **Marine Mammals** includes assessment of effects to harbour porpoise, bottlenose dolphin, minke whale, grey seal (and more), including underwater noise. See our PEIR NTS and chapter 11 of our PEIR.
- **Offshore Ornithology** considers the assessment of seabirds including effects such as collision risk and displacement. See our PEIR NTS and chapter 12 of our PEIR.
- **Commercial Fisheries** considers the current fishing activities and the effects on the fishing industry. See our PEIR NTS and chapter 13 of our PEIR.
- **Shipping and Navigation** considers effects to the marine transport of people and goods (both commercially and recreationally). See our PEIR NTS and chapter 14 of our PEIR.
- **Marine Archaeology and Cultural Heritage** considers the historical landscape and seabed features of archaeological interest, such as wrecks of either maritime or aviation origin, as well as the setting of onshore historical assets. See our PEIR NTS and chapter 15 of our PEIR.
- **Civil and Military Aviation and Radar** considers effects on civil and military aerodromes and radar facilities, and offshore fixed-wing and helicopter flights. See our PEIR NTS and chapter 16 of our PEIR.
- **Infrastructure and Other Users** considers the effects of interaction with other activities and users, for example, offshore oil and gas infrastructure, telecommunications cables and interconnectors, other offshore windfarm developments and marine recreation. See our PEIR NTS and chapter 17 of our PEIR.

- **Seascape, Landscape and Visual Impact Assessment (SLVIA)** considers the extent of views of the Project as well as effects on the landscape character. See our PEIR NTS and chapter 18 of our PEIR.
- **Human Health** considers activities which may affect physical or mental health. See our PEIR NTS and chapter 19 of our PEIR.
- **Socioeconomic, Tourism and Recreation** considers effects to the economy and community assets. See our PEIR NTS and chapter 20 of our PEIR.
- **Climate Change** considers effects to the global climate, including an assessment of the emissions of the Project during all Project phases. See our PEIR NTS and chapter 21 of our PEIR
- **Traffic and Transport** considers the framework for onshore assessment, noting that assessment is not undertaken in detail until the port(s) servicing the Project are selected. See our PEIR NTS and chapter 22 of our PEIR.

We are also encouraging feedback on:

- Our work to **understand the technical and environmental constraints of the areas offered to us by the Crown Estate as part of its leasing process**. This work informed our decision to locate the Project within the area shown on the map on pages 12-13. Constraints analysed and considered include water depths, wind capacity, wave height, seabed conditions, and the location of possible onshore connection and marine port facilities (among other things). See our PEIR NTS and chapter 4 (Site Selection and Assessment of Alternatives) of our PEIR.
- **Community Benefits**. See our PEIR NTS and chapter 20 (Socioeconomic, Tourism and Recreation) of our PEIR.
- **Any information that could help us plan for construction**. See our PEIR NTS and chapter 5 (Project Description) of our PEIR.
- **How we can help support job creation**. See our PEIR NTS and chapter 20 (Socioeconomic, Tourism and Recreation) of our PEIR.

Should any refinements to the Project be needed as a result of the feedback we receive, these will be covered in our Environmental Statement, which will form an important part of our DCO application. See page 23 for more information about next steps beyond this consultation.

# What is Morgan and Morecambe Offshore Wind Farms: Transmission Assets

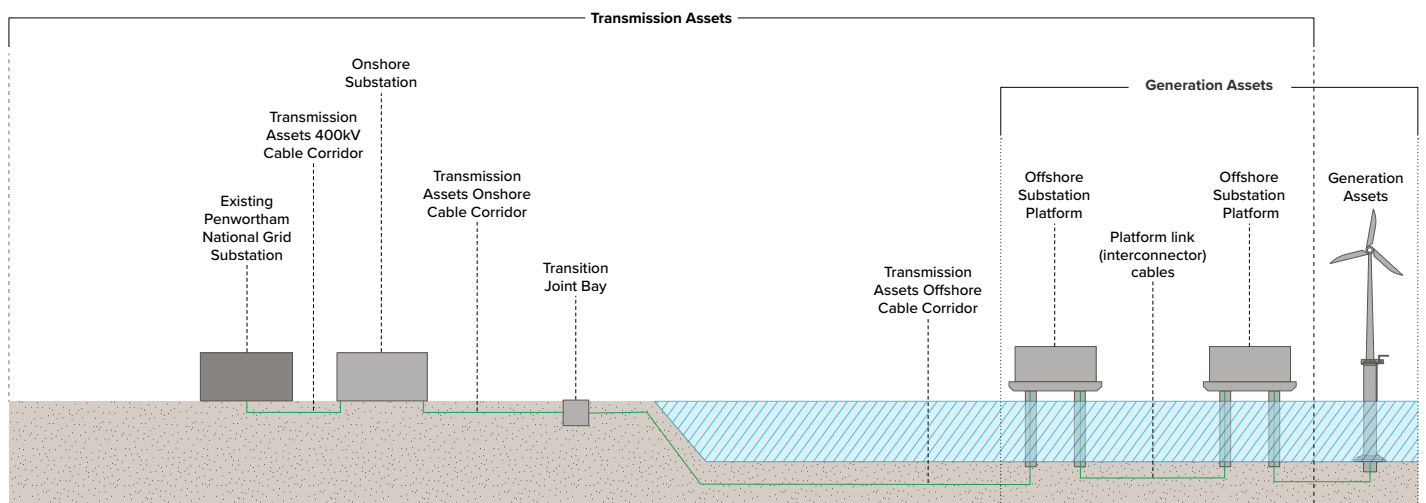
Morgan and Morecambe Offshore Wind Farms: Transmission Assets refers to the offshore and onshore assets that will be used to transport electricity from **Morecambe Offshore Windfarm** and the **Morgan Offshore Wind Project** to the National Grid substation at Penwortham.

The Morgan Offshore Wind Project is another proposed windfarm to be located in the Irish Sea and also requires its own DCO application. Combined, Morecambe Offshore Windfarm and the Morgan Offshore Wind Project will generate almost 2GW of energy.

Both projects were scoped into the Pathways to 2030 workstream under the [Offshore Transmission Network Review](#). As part of this review, National Grid assessed options to improve the coordination of offshore wind generation connections and transmission networks. In July 2022, the UK Government published the [Pathway to 2030 Holistic Network Design](#) documents, which set out the approach to connecting 50GW of offshore wind to the UK electricity network. The output of this process concluded that the Morecambe Offshore Windfarm and the Morgan Offshore Wind Project should work collaboratively in connecting the windfarms to the national grid at Penwortham in Lancashire.

Therefore, both projects intend to submit a single joint application for the transmission assets, comprising of offshore and onshore export cables, an offshore booster station for the Morgan Offshore Wind Project, onshore substations, plus associated grid connection infrastructure. These transmission assets will be associated with both the Morecambe Offshore Windfarm and the Morgan Offshore Wind Project.

**Morecambe Offshore Windfarm Generation Assets** is the focus of this brochure and this consultation. All consultation responses should relate to this project *only*. If you would like to provide feedback on any of the other projects, please refer to their respective websites.



This indicative diagram illustrates which part of the projects are classified as generation assets (Morecambe Offshore Windfarm and Morgan Offshore Wind Project) and which parts are classified as transmission assets (Morgan and Morecambe Offshore Wind Farms: Transmission Assets).

## Next steps

This consultation closes at **midnight 4 June 2023**. Once consultation has closed, we'll carefully consider all the responses received as we develop our proposals further and prepare to submit our DCO application to the Planning Inspectorate and Secretary of State.

Our application will include:

- A **Consultation Report** which will set out how feedback from all our consultations has shaped the design of the proposed development. It will include a summary of consultation responses, including how feedback has been considered and how it may be used. It will also detail the consultation process, demonstrating how it was undertaken in accordance with our SoCC, and how it met all legal requirements.
- An **Environmental Statement** setting out the environmental considerations for the Project and how we could look to mitigate them.

The DCO application will be submitted to the Planning Inspectorate and Secretary of State for Energy Security and Net Zero. We expect to submit our application in 2024.

If the DCO application is accepted, a pre-examination stage will begin, with opportunities for local community members to register as an interested party on the Planning Inspectorate's website and request to take part in the examination process.

The Planning Inspectorate will then examine the DCO application, with input from interested parties and statutory consultees. The examination period is expected to be a maximum of six months. Following the examination, the Planning Inspectorate will present its recommendation to the Secretary of State for Energy Security and Net Zero, who will then make the final decision on whether the DCO should be granted. We anticipate a final decision being made on our application in 2025.

In the meantime, we will continue to engage with stakeholders and undertake further technical assessments to help influence the design of the best possible Project.

Assuming the DCO application is successful, we expect to start construction in 2026 at the earliest.

If, as a result of the feedback received during this consultation, the Project needs to change to an extent that it is necessary to carry out further consultation, this will be carried out in accordance with the principles set out in our SoCC and targeted geographically, or by group, as is appropriate to the change.

### Indicative timeline

- **2022**
  - Ongoing technical and environmental survey work.
  - Non-statutory consultation on Morecambe and Morgan offshore windfarms.
- **2023**
  - Statutory consultation on Morecambe Offshore Windfarm Generation Assets.
- **2024**
  - Application submitted for a Development Consent Order (DCO).
- **2026**
  - Earliest anticipated commencement of construction.
- **2028/29**
  - Expected start – Commercial Operation Date (COD).

Correct at time of publication: April 2023. Please note that this is an indicative timeline subject to change.



# Visualisations of the proposed Project

The size, number and positioning of our turbines have yet to be decided. But at this early stage we've created indicative visualisations to show potential views of the Project from a range of onshore locations.

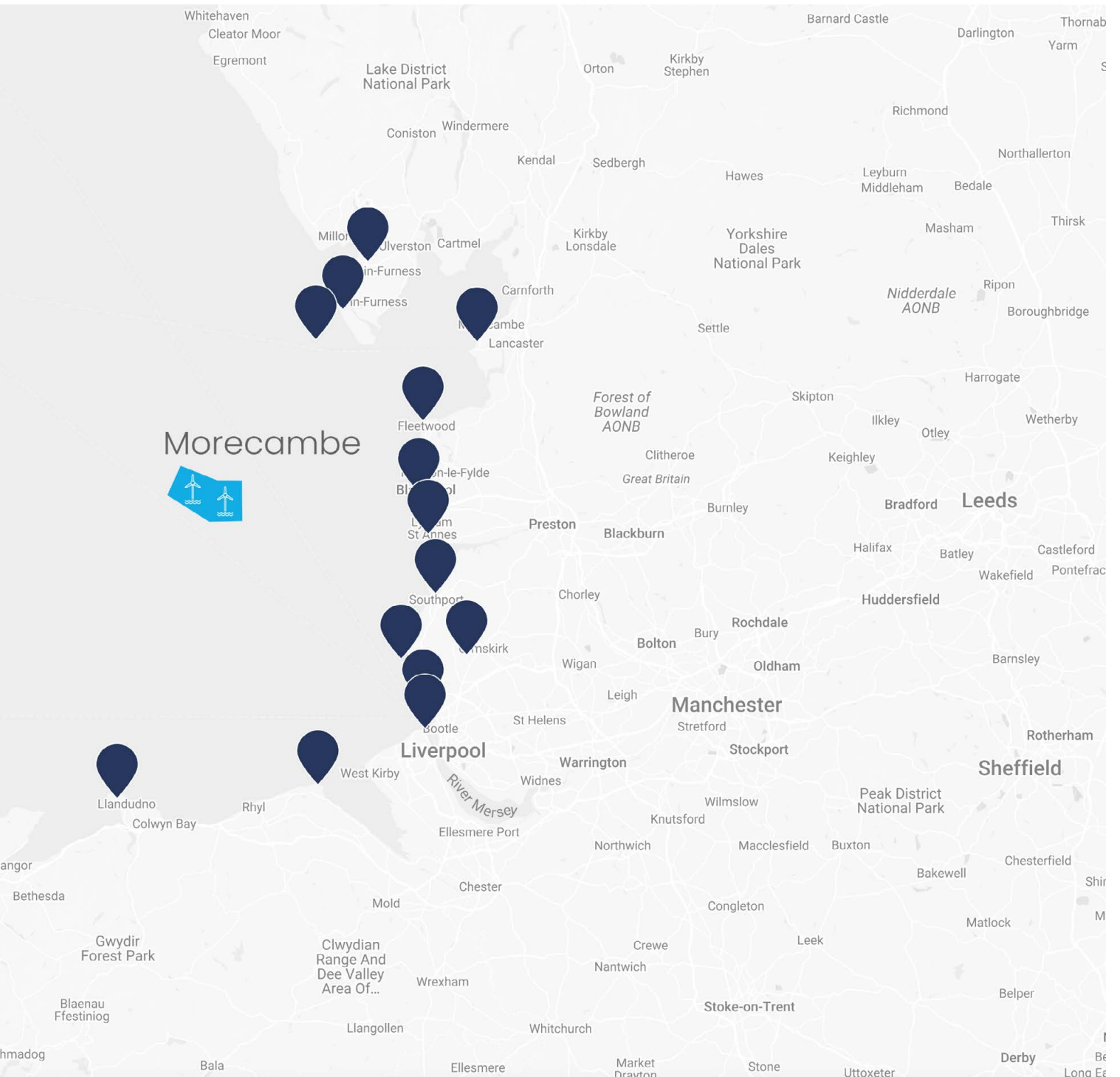
Visit [www.morecambeandmorgan.com/morecambe](http://www.morecambeandmorgan.com/morecambe) to view these visualisations in more detail.

Using the online map, click on the place marker icons along the north-west coastline. This will bring up visualisations created to show the view, including existing infrastructure and how the view might look once the Project has been built. The icons represent different locations on the shore from which the Project might be visible.

Please note that these visualisations are for illustrative purposes only and are not to scale.

These effects will, however, only occur during infrequent periods of excellent, long-range, visibility, and will not occur during most prevailing conditions and periods of lower visibility.





# Glossary

## Consultation Report

This is a summary of the feedback received during the consultation and how the Project has sought to address this feedback, as far as possible. It will also detail how the Project has delivered effective engagement with stakeholders and communities and be submitted as part of the Project's DCO application (see below).

## Department for Energy Security and Net Zero

The Department for Energy Security and Net Zero (DESNZ) is focused on the energy portfolio and was created following the dissolution of the former Department for Business, Energy and Industrial Strategy (BEIS).

## Deposit locations

These are prominent locations chosen along the north-west of England, Isle of Man and Wales where people can visit and read paper copies of the Project's consultation materials. See page 8 to see where these are.

## Development Consent Order (DCO)

A DCO is the means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects (NSIPs). See below.

## Energy Security Strategy

On 7 April 2022 the UK government published its British Energy Security Strategy which proposes to accelerate the UK towards a low-carbon, energy independent future.

## Environmental Impact Assessment (EIA)

This assesses the significant effects of a Project of development proposal on the environmental. EIAs ensure that Project decision makers think about the likely effects on the environment at the earliest possible time and aim to avoid, reduce or offset those effects.

## Environmental Statement

This will include a full factual description of the Project and its likely environmental effects. This is also submitted as part of the Project's DCO application.

## Highest Astronomical Tide (HAT)

The highest level of water that can be predicted to occur under average meteorological conditions and any combination of astronomical conditions.

## Leasing Round 4

Offshore Wind Leasing Round 4 creates the opportunity for a c.8GW of new offshore wind projects in the waters around England and Wales by the end of the decade. That's enough to power more than seven million homes and deliver a step-change in the UK's journey to net zero by 2050. Source: [thecrownestate.co.uk/round-4/](https://thecrownestate.co.uk/round-4/)

## Net Zero by 2050

In 2019, the UK became the first major economy to pass legislation that commits the country to net zero emissions by 2050. In other words, the target is to reduce net greenhouse gas emissions by 100 per cent, relative to 1990 levels.

## Nationally Significant Infrastructure Project (NSIP)

NSIPs are major infrastructure developments in England and Wales that bypass normal local planning requirements. They can include proposals for power plants, new airports, major road projects and large renewable energy projects like this one.

## Offshore Transmission Network Review

The review looked into the way that the offshore transmission network is designed and delivered, consistent with the ambition to deliver net zero emissions by 2050. Source: [www.gov.uk/government/groups/offshore-transmission-network-review](https://www.gov.uk/government/groups/offshore-transmission-network-review)

## Pathway to 2030 Holistic Network Design

This represents a major step for Great Britain in delivering cheap, clean energy from offshore wind. It sets out a single, integrated design that supports the large-scale delivery of electricity generated from offshore wind, taking power to where it's needed across Great Britain. Source: [nationalgrideso.com/future-energy/pathway-2030-holistic-network-design](https://nationalgrideso.com/future-energy/pathway-2030-holistic-network-design)

## PEIR Non-Technical Summary

This is a more succinct summary of the PEIR's key points.

## Planning Act 2008

The 2008 Act provides the consenting regime for granting planning and other consents for nationally significant infrastructure projects. These are large scale developments, both onshore and offshore, such as new harbours, roads, railways, power stations and electricity transmission lines. The 2008 Act sets out the thresholds above which certain types of infrastructure development are considered to be nationally significant and in relation to which developers must seek development consent. The Secretary of State may also issue a direction, the effect of which is to bring a project into the remit of the 2008 Act.

## Planning Inspectorate

The Planning Inspectorate is an executive agency with responsibility for making decisions and providing recommendations and advice on a range of land use planning-related issues across England and Wales.

DCO applications are examined by a single inspector or a panel of inspectors from the Planning Inspectorate, known as the Examining Authority. On completion of the examination, the Examining Authority will provide a recommendation report to the Secretary of State who will decide whether development consent should be granted.

## Preliminary Environmental Information Report (PEIR)

This describes the Project and sets out its potential effects, considering the environment, social and economic effects, and the mitigation measures proposed to reduce any potential effects.

## Scoping Opinion

This is produced by the Secretary of State and refers to the range of issues they believe should be contained in an Environmental Impact Assessment. The Scoping Opinion follows the Project's Scoping Report (see below). The Scoping Opinion is available to read on the Planning Inspectorate's website: [www.gov.uk/government/organisations/planning-inspectorate](https://www.gov.uk/government/organisations/planning-inspectorate).

## Scoping Report

A Scoping Report sets out the proposed content, methodologies to be adopted and the anticipated likely significant environmental effects that are proposed to be considered in the EIA (see above). It supports a request from the project for a written Scoping Opinion (see above) from the Planning Inspectorate, on behalf of the Secretary of State. Our Scoping Report is available to read on [www.morecambeandmorgan.com/morecambe](https://www.morecambeandmorgan.com/morecambe).

## Statement of Community Consultation (SoCC)

This sets out how the Project intends to consult with local communities on its proposals. Our SoCC is available to read on [www.morecambeandmorgan.com/morecambe](https://www.morecambeandmorgan.com/morecambe).

## Statutory bodies

These are government-appointed bodies set up to give advice and be consulted for comment on development plans and planning applications affecting matters of public interest.

## Windfarm site

The area within which the wind turbine generators, inter-array cables, offshore substation platforms and platform link (interconnector) cables will be present.



# Contact us

If you'd like any more information or have any questions about the Project, you can contact us:



Visiting:  
[www.morecambeandmorgan.com/morecambe](http://www.morecambeandmorgan.com/morecambe)  
or use the QR code below.



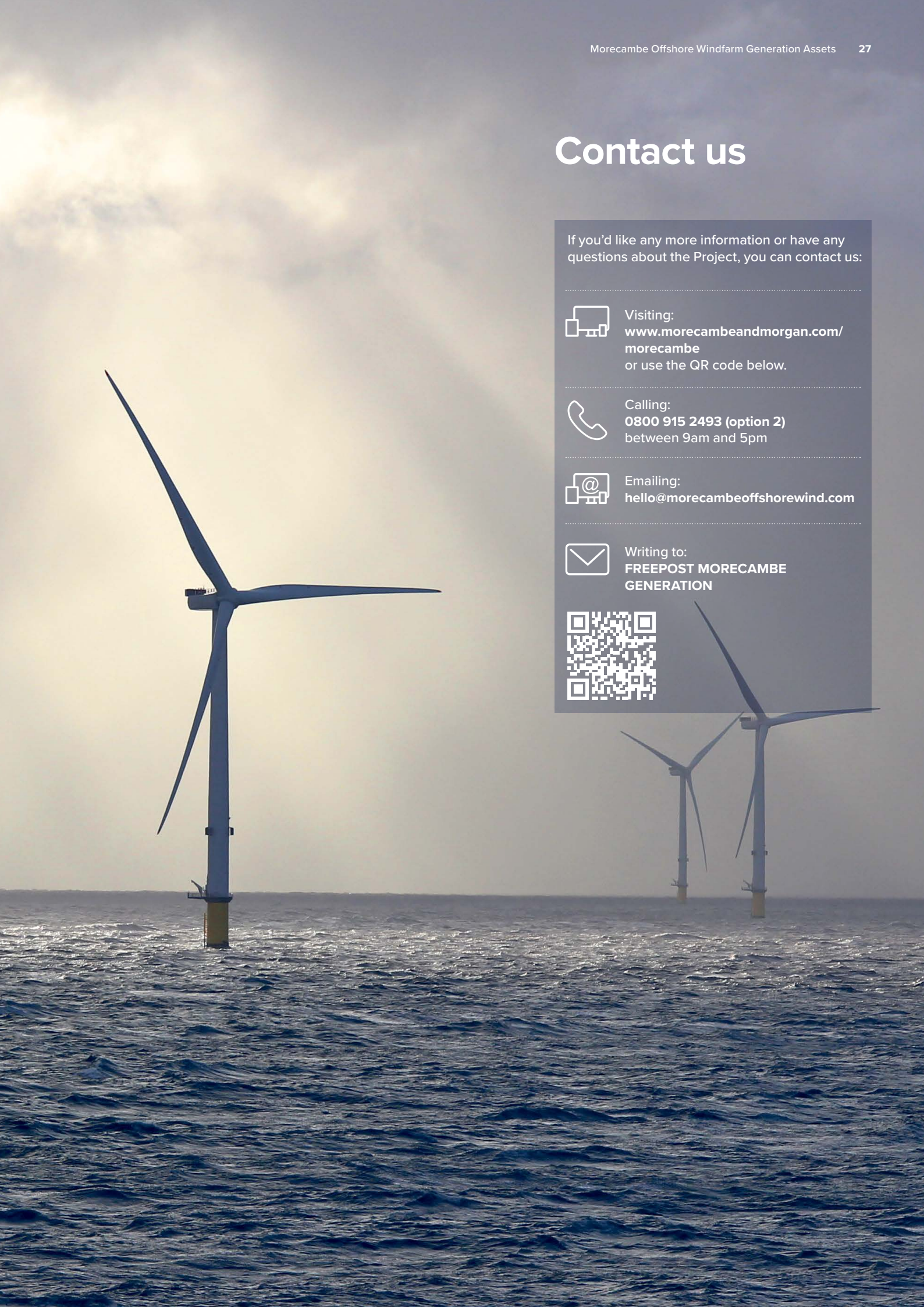
Calling:  
**0800 915 2493 (option 2)**  
between 9am and 5pm

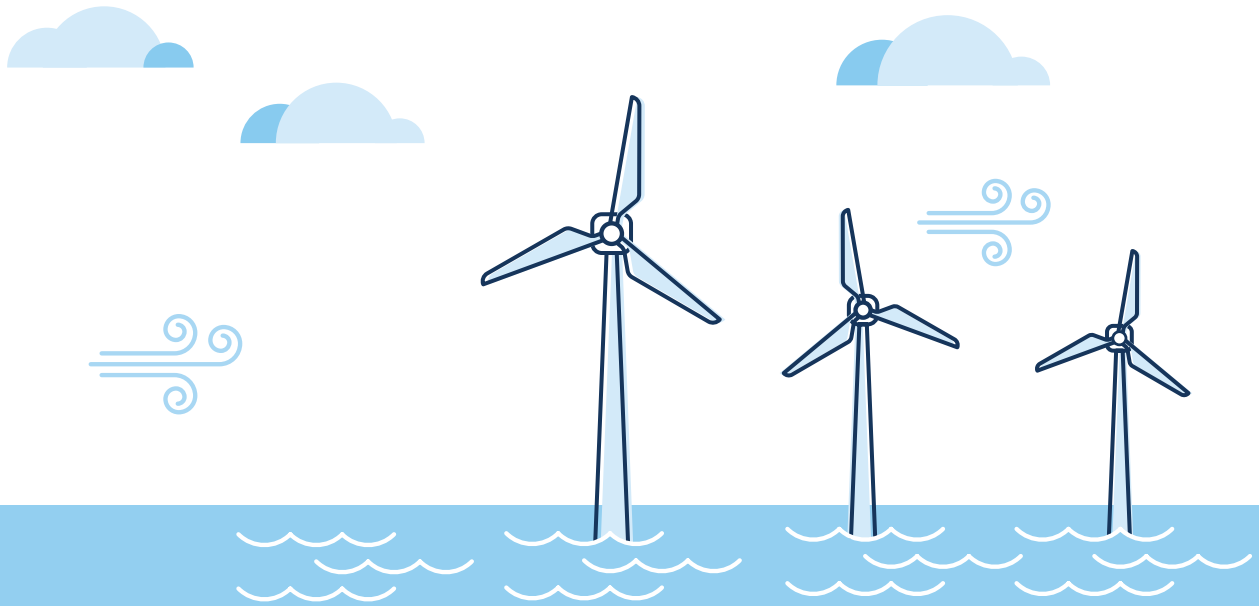


Emailing:  
[hello@morecambeoffshorewind.com](mailto:hello@morecambeoffshorewind.com)



Writing to:  
**FREEPOST MORECAMBE  
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Visit:  
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