Welcome and project overview

Thank you for visiting our exhibition today. We are delighted that you have taken the time to join us for our second phase of public consultation on the Codling Wind Park development.

Watch our latest video here

Context and need

With the potential to provide power for up to 1.2 million Irish homes, Codling Wind Park is the largest Phase One offshore renewable energy project in Ireland and will be essential to achieving national renewable energy and climate action targets. When developed, it will be the largest offshore wind farm off the Irish coast.

What is Codling Wind Park?

Codling Wind Park is an offshore wind farm proposed to be developed in the Irish Sea, approximately 13-22 kilometres off the County Wicklow coast, between Greystones and Wicklow Town. The project is a 50/50 joint venture between Fred. Olsen Seawind and EDF Renewables. Both companies are leading developers, owners and operators of renewable energy assets, with many years of global experience in the renewable energy and offshore wind sector.

When will it be built?

Subject to the receipt of all relevant consents, the project could be ready to commence construction in 2026. Construction is expected to take in the region of three years to complete, which means that the wind farm could export power to the Irish grid system by 2028.

› Image by Megan, from Glebe NS, Wicklow Town

Welcome and project overview

EDF Renewables

EDF Renewables Ireland is part of one of the world's largest electricity companies, operating in more than 20 countries around the world. The Irish team has a wealth of experience in bringing complex development projects to fruition, across onshore and offshore wind, solar PV and battery storage technology, and is supported by more than 400 colleagues in the UK.

In addition to its 50% interest in Codling Wind Park, EDF Renewables Ireland is the sole owner of Wexford Solar, which includes eight solar projects across Ireland, and has an Irish onshore development pipeline of almost 1GW. In the UK, EDF Renewables has an operating portfolio of 36 wind farms and two battery storage units (together totalling almost 1GW).

For further information visit **www.edf-re.ie**.

About Fred. Olsen Seawind

Fred. Olsen Seawind AS is an established offshore wind developer building on Fred. Olsen Renewables' 25 year wind track record, market presence and portfolio.

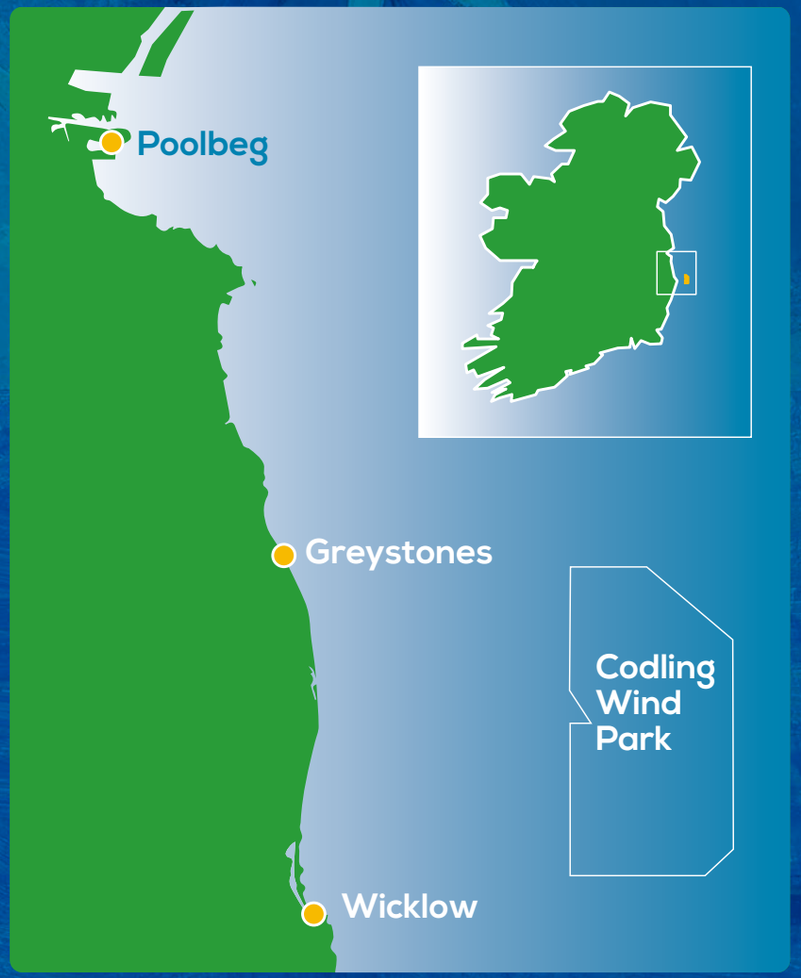
Fred. Olsen Renewables was involved in Codling from 1999 to 2022, when it was transferred to Fred. Olsen Seawind.

Utilising the extensive experience in Scotland gained through over 25 years of development, construction and operation of onshore wind, Fred. Olsen Seawind is committed to progressing offshore wind projects in Ireland, Norway and Scotland and is exploring opportunities in new markets.

For further information visit **www.fredolsenseawind.com**.

› Image by Megan, from Glebe NS, Wicklow Town

› Project site map



Project overview and benefits at a glance

Key project facts

Location
Off the coast of County Wicklow, between Greystones and Wicklow Town.

1,450 MW
Maximum volume of electricity that will be generated by the wind farm.

13-22km
Distance from the offshore wind farm to the coastline.

125km²
Size of proposed offshore wind farm development area.

320m
Maximum offshore wind turbine tip heights.

100
Maximum number of wind turbines to be installed.

Project benefits

80%
Critical to achieving Ireland's target of 80% of our electricity from renewable energy by 2030.

Community fund
Multi-million Euro annual community benefit fund.

2 million tonnes
Annual carbon dioxide savings potential of the project.

Carbon neutral
Essential to Ireland being carbon neutral by 2050.

Jobs
Creation of over 1,000 construction jobs and 75 long-term operations and maintenance jobs.

Investment
One of the largest energy infrastructure investments in Ireland this decade.

Security
Supporting Ireland's future energy security.

1.2 million
Enough clean, low-cost energy for up to 1.2 million Irish homes.

Consultation process and how to get involved

Ongoing engagement with a wide range of stakeholders, including the communities closest to the project, is important to us and we are committed to doing it at every stage of the project's lifecycle.

Our commitment to consultation

Providing opportunities for consultation and feedback is equally important to us, and we have committed to three phases of non-statutory consultation before submitting our planning application. The first, which presented an introduction to the project, took place in March 2021. To learn more about our first consultation and the feedback we received, please read our Phase One Consultation Feedback and Response Report on **codlingwindpark.ie/consultation engagement/**.

Since our first public consultation, we have advanced the project significantly, and we are now in a position to present an updated set of project proposals and seek your feedback on these.

We will review all feedback received through this consultation process, as well as from our ongoing information clinics, meetings with local representatives, liaison with the fishing and maritime community and engagement with the wider local community to ensure that we develop our proposals in the best way possible. The findings from our environmental, technical and feasibility studies will also feed into this process.

Operations and Maintenance Base

In November 2021, Wicklow Port was announced as the preferred location for an Operations and Maintenance Base (OMB) for Codling Wind Park. It is the closest port to Codling Wind Park (approximately 13km at the closest point).

It is anticipated that an OMB would provide offices, warehousing and vessel berthing facilities, as well as an operations control centre, to facilitate operations and maintenance services for the wind farm during the operations phase as opposed to alternatives like offshore service vessels. There is the potential for up to 75 new, long-term, local jobs across maintenance, engineering, administration, and other roles associated with the OMB. It would also provide training and apprenticeship opportunities in the local area, as well as opportunities for local businesses to support the planning, design, construction, and ongoing operation of the OMB.

As the project team are still working to identify and assess the most suitable location and design for the base at Wicklow Port, the OMB does not form part of this consultation process. The OMB will be subject to a separate period of public consultation once plans have been drafted, prior to the submission of a planning application. Details of this consultation process will be advertised extensively in advance.

This consultation

This phase of consultation will run for four weeks, starting on Wednesday 11 January 2023 and continuing until Wednesday 8 February 2023. During this consultation, we would like to hear your views on our updated project proposals, including on the following topics:

- The proposed **design of the offshore and onshore elements** of the project.
- Our **Environmental Impact Assessment** studies for our onshore and offshore work.
- How we should work with and **deliver benefits in the local community**.
- How we should continue to engage with the **fishing community**.
- Any other thoughts you have on the project.

Consultation process and how to get involved

You can provide your feedback in the following ways:

- **Virtual Consultation Room**

  Our Virtual Consultation Room will be live throughout the consultation duration. Here you will find all the project information, and the option to provide your feedback online.

- **In person**

  We will be holding four physical exhibitions throughout January where you can meet the team and provide feedback. Details of these exhibitions can be viewed on our website, **www.codlingwindpark.ie**

- **By email:**

  contact@codlingwindpark.ie

- **Call our information line:**

  087 1011 473

- **By post:**

  Please fill out our feedback form and return to:
  Codling Wind Park Ltd.
  Trintech Building
  2nd Floor
  South County Business Park
  Leopardstown
  Dublin
  D18 H5H9

What happens next?

Following this consultation, your feedback will be reviewed by the project team and considered as part of our ongoing project development work.

A public consultation report, summarising the feedback received as part of this consultation, as well as responses from the project team, will be completed and made available to the public on the Codling Wind Park website.

A third phase of public consultation will be held later in 2023 before we submit our development permission application to An Bord Pleanála.

Your feedback is important to us

Project status

Significant progress has been made across a number of fronts as we continue to develop Ireland's largest Phase One offshore wind farm.

1,450MW

Maximum capacity of the wind farm

Since our first phase of consultation, we have:

- conducted offshore site investigation works and characterisation surveys on the wind farm site and along the proposed cable route corridors;
- selected Wicklow Port as the preferred location for our Operations and Maintenance base (OMB);
- grown the size of the project team to approximately 60 full-time people, across a range of disciplines and areas of expertise;
- continued our engagement with a wide range of stakeholders across the communities closest to the project and initiated monthly information clinics at three locations in Wicklow;
- engaged with a wide range of statutory and non-statutory consultees on our environmental assessment plans..

Below is more detail on some other specific milestones and activities achieved by the project in recent months, as we prepare to participate in the first government Offshore Renewable Electricity Support Scheme (ORESS) in the next couple of months and to submit our development permission application later this year.

Grid Connection Assessment

Following detailed engagement with EirGrid over a period of 24 months, in November 2022, Poolbeg was formally confirmed by EirGrid as the location for our grid connection. Our maximum export capacity (MEC) was also confirmed at 1,450MW. This is the maximum amount of electricity we will be able to transmit into the Irish grid from the Codling Wind Park wind turbines.

These decisions have allowed us to further develop the proposed design and layout of the project.

Maritime Area Consent

In June of last year, Codling Wind Park applied to the Government for a Maritime Area Consent (MAC). In October, another significant milestone was recorded on the project when we received notification from the Minister for the Environment, Climate and Communications that our application was successful. Receipt of the MAC, together with our Grid Connection Assessment, will allow us to participate in ORESS later this year, and then to submit a development permission application to An Bord Pleanála.

Surveys and environmental studies

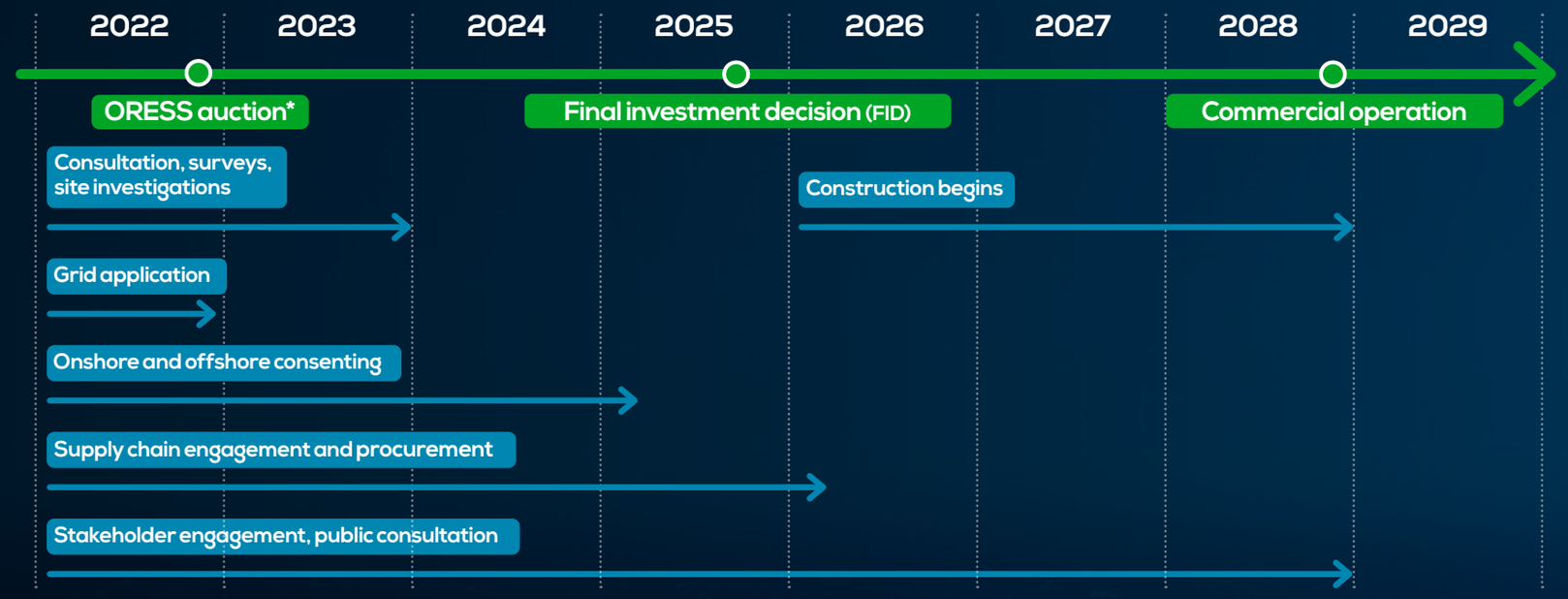
Surveys and environmental studies in support of the project, both onshore and offshore, are an important part of the environmental assessment process. Some of these activities – such as ornithology surveys – have been ongoing for many years. Onshore, we have also commenced other surveys including habitat (flora and fauna), protected species, geotechnical, baseline noise and archaeological surveys.

Offshore, a number of studies and surveys – geophysical, geotechnical, ecological and metocean – have been undertaken in recent years.

These onshore and offshore surveys and studies provide important technical and environmental data that will help provide a more detailed understanding of the existing environment in our development areas.

This information will be used to inform the design of the project and our environmental assessment, our EIA process and the design of our wind farm array, offshore cable route, landfall point and onshore works.

Project status



*ORESS = Offshore Renewable Electricity Support Scheme

What is a Phase One project?

In May 2020, the Government designated six offshore wind projects, which were already in development for some time, as 'Relevant Projects' in the context of the Maritime Area Planning Bill, which was then being developed and is now enacted. These projects – including Codling Wind Park – are now called Phase One projects, and will be prioritised through the new offshore consenting, grid and ORESS regimes, in order to deliver the Government target of 7GW of offshore wind by 2030.

What is ORESS?

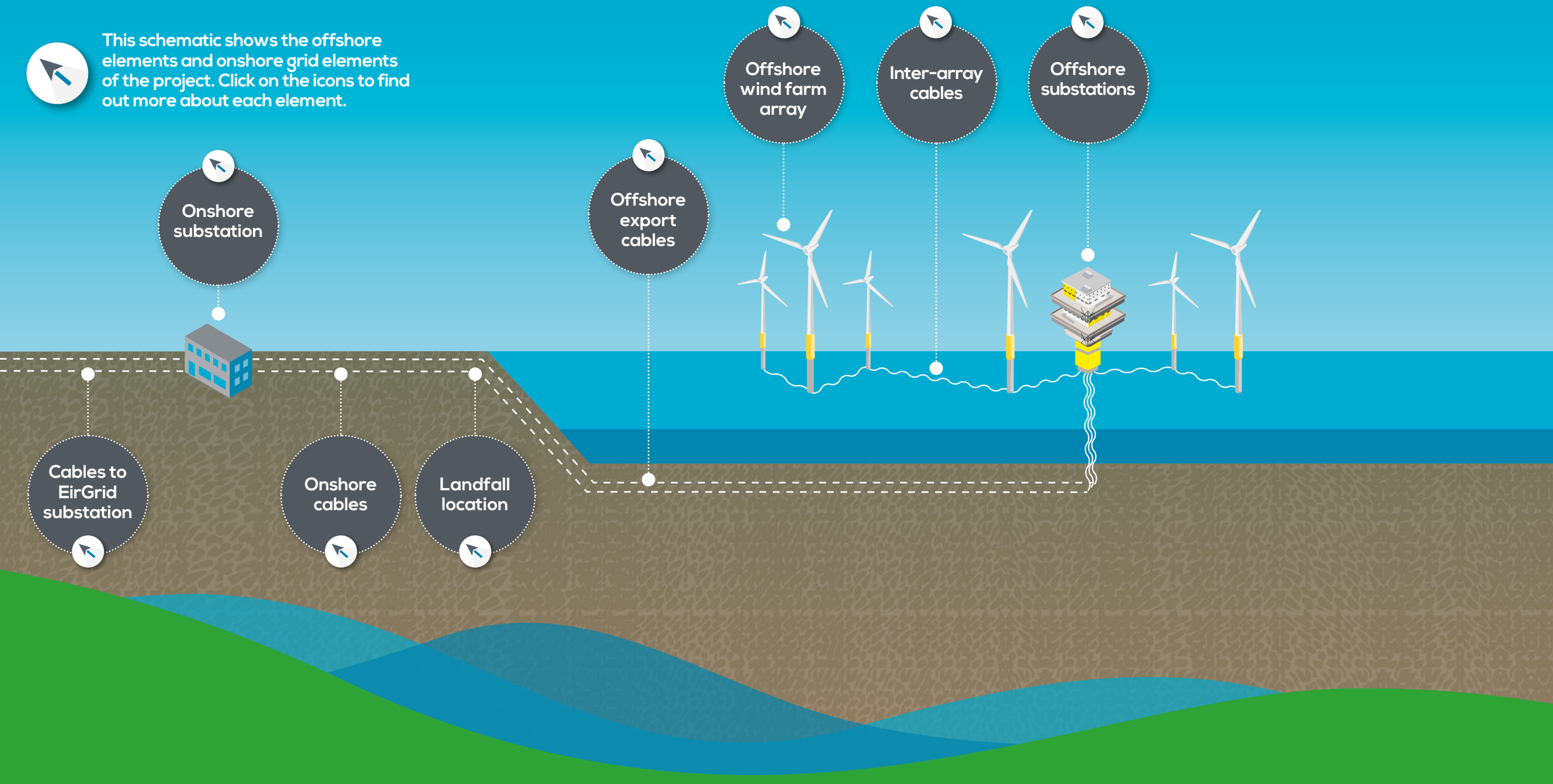
The Offshore Renewable Energy Support Scheme (ORESS) is a government initiative that provides support to renewable electricity projects in Ireland. ORESS has a primary focus on cost effectiveness but also has a range of other objectives including community support, increasing energy security and sustainability. Support under ORESS is allocated by way of auctions, where projects compete for a certain amount of electricity generation capacity. Those that are successful receive a guaranteed price for the electricity generated for a 20-year period.

What is a Maritime Area Consent?

A Maritime Area Consent (MAC) is a new requirement for marine-based projects which came into effect in December 2021 following the enactment of the Maritime Area Planning Act. It is designed to replace the old foreshore lease process to give projects permission to occupy the seabed. In order to compete in the ORESS auction and apply for development permission, a project must have a MAC in place.

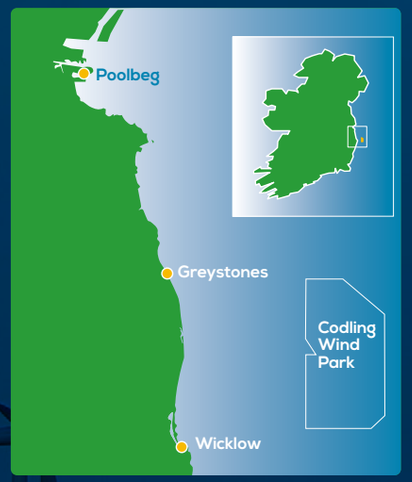
Key elements of the project

This schematic shows the offshore elements and onshore grid elements of the project. Click on the icons to find out more about each element.



Offshore wind farm array and offshore substations

The Codling Wind Park offshore wind farm array will be located approximately 13–22km off the coast of Co. Wicklow. The overall size of the array site is 125km².



› Project site map

Wind turbines and array layout

It is proposed that up to 100 wind turbines could be installed in the proposed wind turbine array site to meet our maximum export capacity. Developments in wind turbine technology, combined with a more detailed understanding of the array site, has enabled us to refine the offshore proposals that were presented at our first public consultation.

We had previously proposed up to 140 wind turbines as part of the project, but we are now considering a maximum of 100, with a maximum blade tip height of 320m. This is, in large part, down to our commitment to ensuring that environmental considerations are at the forefront of our design and planning.

Offshore wind turbines are larger than those used on land, in order to produce more electricity and take advantage of higher and more consistent wind speeds offshore.

We are currently considering two scenarios for the array layout, dependent on the wind turbine heights and generating capacity of each. The higher the capacity per wind turbine, the fewer wind turbines we will need to use in order to generate the desired amount of electricity.

Each wind turbine is expected to be supported on a monopile or jacket foundation. The foundation type will be confirmed during the design phase.

Next steps

Further refinement of the proposed array layouts will take place over the coming months, which will require a balance of technical and environmental considerations. The key environmental considerations that inform the design include landscape, seascape and visual impacts, seabirds and their populations, navigational safety and commercial fishing. It is possible that we will seek consent for two array layout options, with the final layout to be decided upon closer to the start of construction and in line with our planning conditions.

100

Maximum number of proposed wind turbines

320m

Maximum height of wind turbines

This consultation

We would like to hear your feedback on the offshore array based on the information provided and photomontages presented. Please note that we are not seeking a preference for one option over the other, as the final layout may be a combination of elements from both or we may seek consent for two layout options. Feedback on specific elements of each layout would therefore be appreciated.

We would also welcome your views on the View Point locations and if you think other public locations should also be considered in the Environmental Impact Assessment.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Offshore wind farm array and offshore substations

Offshore substations

Within the array site, up to three offshore substations will be installed. The purpose of these substations is to collect the power from the wind turbines and convert it to a higher voltage for transmission - via the export cables – to shore. This ensures that as little energy as possible is lost as the electricity is brought ashore.

Each offshore substation is expected to be supported on a monopile or jacket foundation. The foundation type will be confirmed during the design phase.

A typical offshore substation may be around 35 metres long, and 20 metres wide. Including their foundations, they generally have an overall height of around 40 metres.

Inter-array and interconnector cables

Inter-array cables will connect each wind turbine to one of the offshore substations, which are connected together by interconnector cables. Installation of the cables will likely involve jetting, trenching or ploughing, and will involve both seabed preparatory works and installation works. The cables are expected to be buried to a depth of approximately 1-1.5m below the seabed. Where this is not possible, additional measures will be put in place to ensure the cable is protected.

Visual impact of the wind turbines and offshore substations

As part of our Environmental Impact Assessment (EIA), we are undertaking a Seascape/Landscape Visual Impact Assessment (SLVIA) to see how the wind turbine array and offshore substations will look from different locations on the coast. The SLVIA will identify, predict and evaluate the potential effects on the seascape, landscape and visual resource.

We have prepared photomontages for 10 viewpoints, to ensure broad coverage along the coastline. These photomontages use two different layout options which we are currently exploring. To view these photomontages, click on the link on the left of this information board or visit our separate 'Photomontages' section.

The assessment will also include consideration of the potential impacts on other marine users and the cumulative impacts of other regional projects in accordance with the relevant guidance and legislation.

Click here to view the Photomontages from 10 different viewpoints

› EDF Renewables Teesside Offshore Wind Farm

› Substation Visual Westermost Rough

› Race Bank Offshore Substation

Offshore export cables

In order to transport the electricity generated by the wind turbines at Codling Wind Park to shore, we will need to lay export cables between the offshore substations and a landfall point onshore.

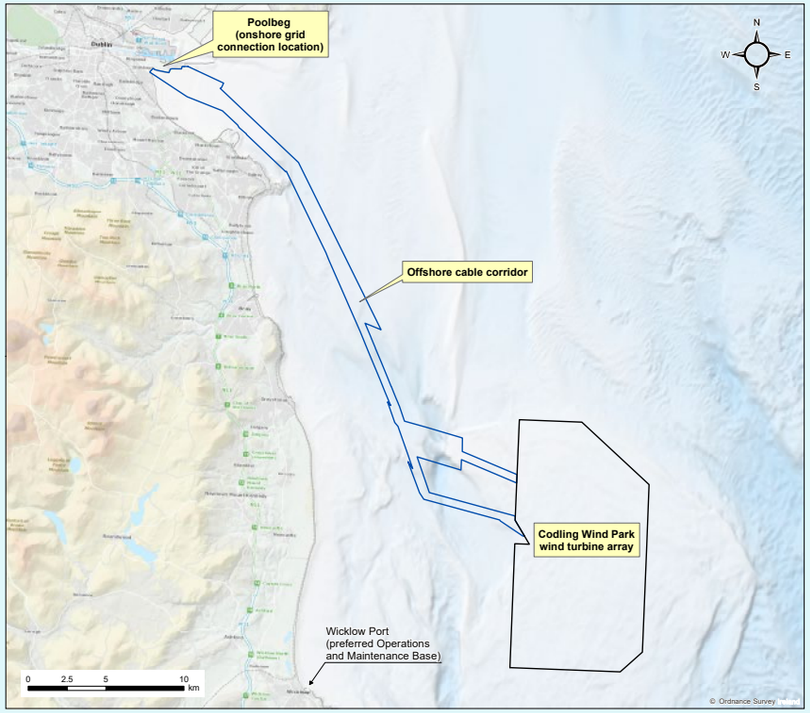
As EirGrid has now confirmed Poolbeg as our grid connection location, our investigation efforts are solely focusing on an export cable route corridor, within which up to three cables will be located. These cables will connect the offshore substations to a landfall point at Poolbeg, which is discussed in the 'Onshore elements of the project' section of this exhibition.

The export cable corridor is dictated by the preferred cable landfall area, and technical and environmental considerations such as seabed conditions and seabed habitats. Further consideration will be given to the alignment of the three cables within the proposed corridor to minimise environmental impacts, including on archaeological features and benthic habitats. Installation of the offshore export cables will likely involve jetting, trenching or ploughing, and will involve both seabed preparatory works and installation works at the landfall site and in the Dublin Bay intertidal area. Additionally, any services (e.g. gas, electricity and water) which cross Dublin Bay will have necessary preparations and protection.

The export cables are expected to be buried to a depth of approximately 1-2m below the seabed. Where this is not possible, additional measures will be put in place to ensure the cables are protected.

Interactions between the export cables and environmental features, such as protected sites, will continue to be considered in the design of the project, and will be carefully assessed as part of the Environmental Impact Assessment (EIA) and Appropriate Assessment (AA) process. Any necessary mitigation and monitoring measures will be identified through these assessments.

It is expected to take approximately 24-30 months to complete works on laying the export cables.



› Cable corridor boundaries

This consultation

During this consultation we are looking for feedback on what we may need to consider as we continue to develop plans for our export cable corridors.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Landfall location and onshore cable route

Although the wind farm will be located offshore, in order to transmit the clean electricity generated at Codling Wind Park to Irish homes and businesses, a connection into the national grid is needed.

When the grid connection exploration process began originally, we had three potential connection locations to explore. As presented at the last public exhibition, these were Ballybeg in Co. Wicklow, Carrickmines in Co. Dublin and Poolbeg in Dublin City. We carried out an initial examination of potential offshore and onshore export cable route options to get to each location, including potential landfall and onshore substation locations for each option.

However, following extensive consultation with EirGrid – the operator of the electricity transmission system – and the conclusion of a formal Grid Connection Assessment, our grid connection to the Poolbeg 220kV substation in Poolbeg in Dublin was confirmed last year. Poolbeg is already a strategic grid connection node for generation in Dublin, has the necessary capacity for this development (a capacity of 1,450MW was identified by EirGrid in an offshore capacity report), and is a key part of EirGrid's Dublin upgrade works.

To facilitate the transmission of electricity into the national grid at Poolbeg, some key elements of the project will need to be developed in, and in the vicinity of, the Poolbeg peninsula.

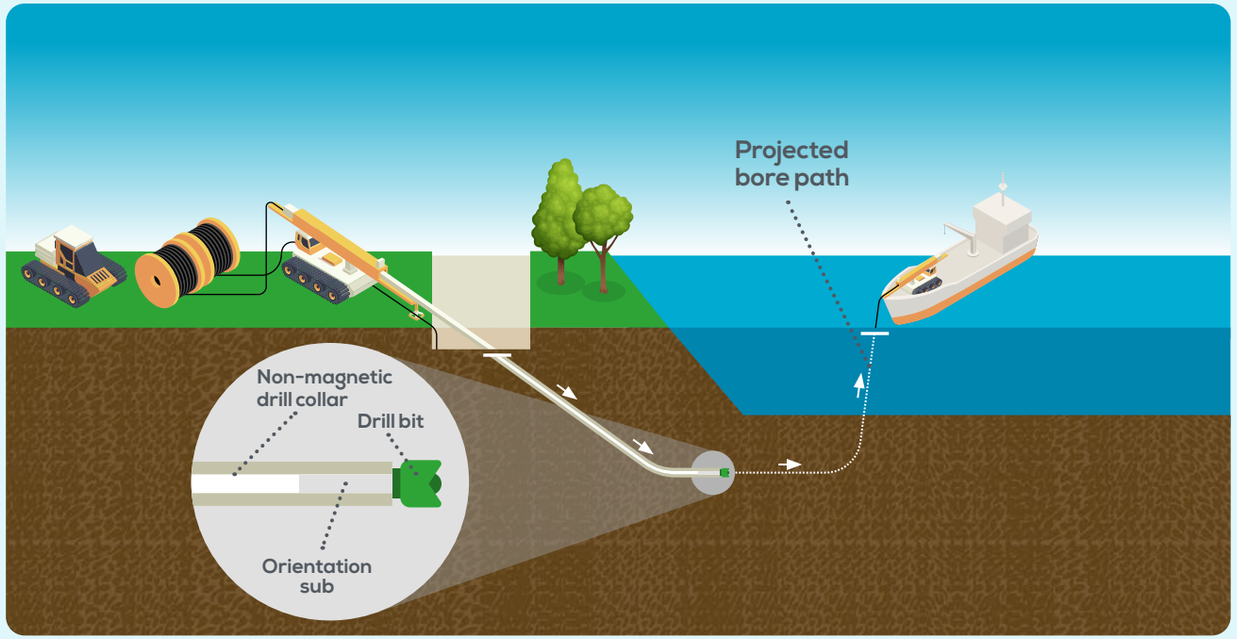
Landfall location

Firstly, electricity generated at the offshore wind farm array will be brought onshore, via export cables, at a point known as the landfall. An extensive site selection process was undertaken which examined the feasibility of 12 potential landfalls within the southern Dublin Bay area and the Liffey from a technical, economic, environmental, socio-economic and deliverability perspective.

The site selection identified an area on the southern side of the Poolbeg peninsula (see map) as the best performing landfall for Codling Wind Park. This landfall site benefits from its proximity to the preferred onshore substation site, helping to minimise onshore cable routing distances and associated disturbance to the environment and local communities. The site also has favourable conditions for construction, including appropriate space for a temporary compound, no conflicts with other utilities and no major construction obstacles. Furthermore, the site benefits from existing access via Shellybanks Road and South Bank Road, minimising the need for site access works that may otherwise be required.

Three export cables will need to be brought ashore, connecting the offshore wind farm to onshore infrastructure. It is currently anticipated that cables will be installed at landfall points using one of two methods:

- Open-cut trenching installation
- Trenchless techniques such as horizontal directional drilling.



› A representation of how horizontal directional drilling works

Landfall location and onshore cable route

Once ashore, the offshore cables are jointed to the onshore cables in three underground chambers, known as Transition Joint Bays (TJBs).

Once construction is complete, the area where the TJBs are located will be restored and the only above ground infrastructure that will be visible will be manhole covers at each TJB location. These are needed for maintenance access.

We are in the process of identifying the most suitable installation method, as well as construction compound and access arrangements for our landfall point. Full details of these proposals will be presented in our planning application. The project is conscious of the proximity of the site to environmentally sensitive areas including the South Dublin Bay SAC and River Tolka Estuary SPA.

A number of surveys and investigations have been undertaken and a thorough impact assessment is being carried out in consultation with the National Parks and Wildlife Service. This includes developing mitigation measures to minimise impacts and ensure that our proposals are fully compliant with all national and European legislation. All the cables will be buried with no above ground features expected post construction.

Onshore cables and route options

Onshore cables will be installed to transport the electricity from landfall to Codling Wind Park's proposed onshore substation. The project is undertaking onshore cable route assessment studies to identify potential options for the onshore cable route. Six potential route options were assessed against a number of criteria, including technical, economic, environmental, deliverability and socio-economic considerations, whilst also seeking to minimise disruption to local communities and take account of other existing utilities on the Poolbeg peninsula.

Based on their scores against these criteria, three emerging preferred options have been selected and are now being considered in further detail to fully assess their suitability. The corridors being looked at for these three potential routes can be viewed on the 'Onshore grid infrastructure locations' map in our 'Maps' section elsewhere in this exhibition.

The assessments have also confirmed the cable route option from the new substation site at Pigeon Park to the connection point at EirGrid's existing Poolbeg 220kV substation.

› Open-cut trenching equipment, referenced on previous board

Click here to view relevant maps

Onshore substation

Transmitting electricity from Codling Wind Park into the national grid requires a new onshore 220kV substation to be built by us in the Poolbeg area. This substation will prepare the electricity to the appropriate specifications for delivery to EirGrid's 220kV substation at Poolbeg.

Our current proposals

A site adjacent to Pigeon House Harbour, on the west side of the Poolbeg peninsula, has been identified as the most appropriate location for the substation. This site was selected by Codling Wind Park following a site selection process which considered 11 possible locations in and around the Poolbeg peninsula to identify the most suitable and available area for the substation.

Key considerations that informed the site selection process include land availability, location of existing utilities, distance from landfall and the existing EirGrid substation, and environmental and socio-economic receptors. The area is close to the proposed landfall, so onshore cabling can be kept to a minimum. This will minimise disruption to residents and amenities and reduce the potential environmental impacts from the cables.

Photomontages from surrounding viewpoints have been prepared for an indicative size of the substation building on the site. These photomontages are based on the anticipated maximum building and equipment heights for the onshore substation.

The proposed onshore substation site is approximately 1.5 hectares, (around the size of one-and-a-half football pitches), which will be large enough to accommodate the required electrical infrastructure for Codling Wind Park. It is expected that onshore construction works, including the substation and the landfall point, will take approximately 24-36 months to complete.

Click here to view the Photomontages from 2 different viewpoints

A new onshore 220kV substation will be built in Poolbeg

This consultation

During this consultation we are looking for feedback on what we may need to consider as we continue to develop the detailed design for our onshore works, including the substation.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Environmental Impact Assessment and Appropriate Assessment

The Environmental Impact Assessment (EIA) process assesses the potential effects, be they positive, neutral, or negative/adverse, on the environment, people and local communities which may arise from the development. The Appropriate Assessment process considers the potential effects on European sites designated as part of the European Natura 2000 network.

The outcomes will be presented in an EIA Report (EIAR), and a Natura Impact Statement (NIS), which will be submitted to the consenting authority in support of the planning applications.

The EIAR will also set out the mitigation measures proposed by the project to reduce the significance of negative effects, and proposals to monitor the environment before, during and after construction as required. It will also consider the cumulative impacts of other regional projects in accordance with the relevant guidelines and legislation.

The EIAR presents the results of significant and systematic assessments of the predicted impact of a proposed project on the environment. The EIAR considers a range of topics, with the EIA team undertaking rigorous assessment in respect of each.

These topics include:

- Population
- Human health
- Biodiversity (aquatic and terrestrial)
- Land and soils
- Water and flood risk
- Air quality
- Climate (carbon balance assessment)
- Noise and vibration
- Onshore archaeological, architectural and cultural heritage
- Landscape and visual
- Traffic and transport
- Material assets
- Physical processes
- Benthic and intertidal ecology
- Offshore bats
- Fish and shellfish ecology
- Marine mammals and reptiles
- Marine water quality
- Marine ornithology
- Commercial fisheries
- Shipping and navigation
- Aviation, military and communications
- Marine archaeology
- Other marine users
- Seascape, landscape and visual impacts
- Waste and resource management

› LB Jill on site plus AMS Panther

A complete and comprehensive EIAR is important to ensure that the impact of a project on the environment is understood before permission for development is granted.

It also identifies mitigation measures, where appropriate, to contribute to environmental protection.

This consultation

We are endeavouring to deliver an EIA and AA that consider all the possible impacts of the project on the environment. We want to hear your feedback on the EIA and AA processes, and would welcome any comments, queries or concerns that you may have in relation to the project under any of the above headings.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Environmental Impact Assessment process

The EIA and NIS process considers the potential impacts, but it also examine the current circumstances (or 'baseline') and models likely impacts of the project across a number of receptors.

A key consideration is how we will avoid, minimise or mitigate those impacts wherever possible. It will also consider the cumulative impacts of other regional projects in accordance with the relevant guidelines and legislation.

The process is iterative: as we receive feedback and further data, the project design is refined to ensure we can deliver important renewable energy, balanced with good design and mitigation of potential impacts.

We are here

Screening
Is an EIA required?

Scoping
What should the EIA cover?

Baseline description
- Data sources
- Site-specific surveys
- Modelling

Impact prediction
Examination of potential impacts and to reduce negative impacts through project design

Impact assessment and mitigation identification
Assessment of potential impacts and measures to remove or reduce negative impacts and enhance positive ones

Environmental Impact Assessment Report (EIAR)
Submission of EIAR as part of development permission application

Determination
The consenting authority examines and determines the development permission application

EIAR follow-up
Implementation of monitoring and mitigation commitments, and environmental management during construction

Ecology

As part of our Environmental Impact Assessment (EIA) and Natura Impact Statement (NIS) activities, we are assessing the potential impact of our project on offshore and onshore ecology, including marine mammals, seabed ecology, seabirds, intertidal species, and fish and shellfish.

To inform the EIAR and NIS, we have undertaken a lot of work since our last consultation. The following summarises what we have completed to date and what further work we plan to do.

We:

- have completed several surveys and have planned more
- have used the survey data to understand possible environmental sensitivities to inform project design
- are about to start impact assessments (EIA and NIS)
- are undertaking ongoing stakeholder engagement to inform the assessments
- have identified key receptors for the assessments.

The surveys we have undertaken to date have included:

- habitat (flora and fauna) surveys for both offshore and onshore
- protected species surveys including bat activities and marine mammals
- offshore ornithology surveys using digital aerial and boat-based techniques, wintering and breeding bird surveys onshore and in the intertidal area
- invasive species surveys onshore
- shipping surveys
- commercial fisheries data collection.

This consultation

During this consultation, we are looking for feedback on ecological considerations, either in the onshore or offshore environment, that you think we should bear in mind as part of the EIA process.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Offshore ecology

Our surveys and assessments allow us to gain an understanding of how marine life and bird populations interact with the project area, including their use of the area and movement patterns.

Extensive surveys on birds and marine mammals have been completed for the project, including aerial surveys. The results of these surveys will be presented in the Environmental Impact Assessment Report to be submitted as part of the planning application. Assessments to date have identified a number of species in the area, including species of national and regional conservation interest, which will be subject to detailed assessment and mitigation measures.

Birds

As part of our EIA and NIS, we are undertaking a marine ornithology assessment which will consider the potential impact of the project on seabirds, migratory birds, intertidal species, species on the onshore cable route and at the substation, and species in the River Liffey.

We have now completed two years of digital aerial surveys, a long series of boat-based surveys and preliminary collision risk monitoring to understand potential effects for offshore birds, and to refine the project design. The surveys have identified that several seabird species use the wind turbine array site including kittiwakes, guillemots, Manx shearwaters and razorbills. We are now working to identify if there will be any displacement impacts on relevant species.

We have completed two years of intertidal surveys around the proposed landfall areas, including monitoring of a significant colony of migratory terns in the South Dublin Bay area.

We will also consider the potential impacts of the other species that use the River Liffey.

We will aim to minimise impacts through design, and, where required, identify mitigation which will be implemented during construction and operation.

Marine mammals

We have carried out marine mammal surveys of the array area, the results of which will be presented in the EIAR and NIS. These surveys considered species including whales, dolphins, porpoises and seals. The EIA will consider how they interact with the development areas in terms of movement and area usage, and how they may potentially be impacted by the development.

Over the coming months the marine mammal team will continue to support the refinement of the project based on the outcomes of the surveys and will introduce appropriate mitigation and monitoring measures to minimise potential impacts, where required.

Benthic (seabed) ecology

We are undertaking a benthic (seabed) ecology assessment which will consider the potential impact of the project on benthic habitats.

To date, we have completed benthic subtidal and intertidal surveys to inform the assessment and have found the area to be relatively varied with areas of hard ground and cobbles and areas of soft sediment, with a number of different organisms present throughout the array and cable corridor areas.

Our next steps will be to complete the assessment and build measures into the design and cable routing processes which minimise the risk of any potential impacts. Where potential impacts remain, appropriate mitigation measures will be developed.

Fish and shellfish ecology

We are undertaking a fish and shellfish ecology assessment which will consider the potential impact of the project on fish and shellfish species. To date, we have engaged with statutory and non-statutory bodies to obtain feedback for an initial scoping approach. We have agreed our proposed approach to the EIA assessment and additional data such as eel monitoring reports have been provided to inform the baseline. We are continuing to refine the project based on our findings, including on underwater noise and physical process modelling.

Onshore ecology

We recognise the importance of this ecological environment at Poolbeg. As part of our onshore assessments, we have commenced survey work and have undertaken:

- **habitat (flora and fauna) surveys**
- **protected species surveys including bat activity and otter surveys**
- **wintering and breeding bird surveys**
- **invasive species surveys.**

We have also been consulting with stakeholders including National Parks & Wildlife Services, Dublin City Council and Inland Fisheries Ireland. Findings from our surveys and consultations will be integrated into our assessments.

For the landfall and onshore cable route, many of the lands will be fully reinstated once the construction works are completed.

Where possible, we will seek to implement biodiversity enhancements, such as planting native hedgerow and tree species.

Bats

We have completed bat activity surveys over the last two years. Three bat species have been recorded: Soprano pipistrelle, Common pipistrelle and Leisler's bat. They were recorded foraging and commuting in the onshore areas.

Otters

Otters have been observed in the Poolbeg area and, as part of our onshore surveys, we have been recording any signs of this species.

Birds

Ornithology is also a consideration for our onshore infrastructure. In addition to undertaking breeding and wintering bird activity surveys at Poolbeg, we've also undertaken surveys to gather additional information on the peregrine falcon, the brent geese using the onshore feeding grounds near the Irishtown Nature Park and the breeding tern colonies near the onshore substation site.

In developing our onshore infrastructure, we will aim to minimise impacts through design, and, where required, identify mitigation which will be implemented during construction and operation.

Heritage and archaeology

As part of the Environmental Impact Assessment (EIA), we will be assessing the interaction between the project and the following onshore and marine archaeology, architectural and cultural heritage features:

- known onshore and marine archaeological assets and areas of archaeological potential;
- designated architectural heritage and other significant architectural heritage;
- previously unrecorded archaeological and architectural remains;
- designations or sensitivities related to folklore and heritage.

> Marine Archaeology Survey

Offshore archaeology and heritage

The offshore EIA will consider seabed prehistory, maritime archaeology, aviation archaeology and intertidal heritage assets. We have begun an archaeological assessment of geophysical and geotechnical survey datasets of the seabed and completed coastal walkovers and metal detection surveys to identify potentially unrecorded archaeological features.

This will enable us to determine the nature, extent and significance of the marine and maritime historic environment within the proposed development areas.

Onshore archaeology, architectural and cultural heritage

The Poolbeg area is situated on lands reclaimed from intertidal areas going back to the 1700s and there are a number of designated archaeological and architectural heritage-related assets within the area. The line of a harbour wall associated with Pigeon House Harbour also runs east to west, along the boundary of the proposed onshore substation site. This was identified from a review of old Ordnance Survey maps and site walkovers. As part of our onshore EIA, we will be considering potential impacts associated with the onshore infrastructure on these and other features.

Next steps

The next steps will be to continue to inform the design of the project, complete the onshore and marine archaeological assessments and develop mitigation measures to minimise any potential impacts on archaeology and heritage features. A Protocol for Archaeological Discoveries will be implemented during construction to mitigate the risk to any previously unrecorded archaeological remains. The EIA will be undertaken in line with appropriate guidance, and results will be presented in the EIA Report, which will be submitted in support of the development permission applications.

This consultation

During this consultation, we are looking for feedback on cultural, heritage or archaeological features in the onshore and offshore environment that you think we should consider as part of the EIA process.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Navigation and safety

Navigation and maritime safety within and around the offshore array are key considerations of the project.

› EDF Renewables Teesside Offshore Wind Farm

We are working closely with stakeholders from across the maritime sector to ensure that our project is delivered in line with all relevant legislation.

As part of our Environmental ImpactAssessment (EIA), Codling Wind Park are using the services of an independent marine traffic consultant who will prepare a detailed Navigation Risk Assessment which will consider the potential impact of the project on marine users in transit including commercial, recreational,and fishing vessels. This assessment will support the Shipping and Navigation Assessment within the EIA.

To date we have completed extensive baseline data collection, including surveys required by the regulators, to define traffic movements within the area and are currently processing the results. We anticipate the risk of a collision with the wind turbines to be very low. The Navigation Risk Assessment will inform any potential risk to fishing and shipping and serve to identify mitigation options to be employed.

All wind turbines will be visible, lit appropriately in line with Commissioner of Irish Lights (CIL) requirements, charted, and mapped on navigation plotters etc. The wind turbines will also have significant separation distances between them, in the region of 1-1.5km.

The next step will be to identify the baseline before assessing it against the potential impact of the project, both in a current and future case environment. This includes running a Hazard workshop, involving identified users of the area, to provide local context input into that impact assessment.

1-1.5km

Approximate space between wind turbines

This consultation

We are keen to hear from stakeholders in the maritime sector who may have valuable insight into how the project can ensure safety and ease of navigation throughout the construction and operation of the offshore wind turbine array.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Traffic, noise and lighting

Traffic

During construction, there will be a temporary increase in traffic levels on the road network in the vicinity of the planned works at Poolbeg, in order to bring equipment, materials and personnel to and from the working areas. The potential impacts from the construction traffic will be assessed against current traffic conditions in the Environmental Impact Assessment (EIA). In order to establish these conditions, we plan to collect data on existing traffic flows around Poolbeg, in consultation with stakeholders, including the local authorities.

A Construction Traffic Management Plan (CTMP) will be prepared in collaboration with the local authorities and local community ahead of any construction commencing. The CTMP will set out the measures that we will implement to manage and minimise traffic and transport-related effects resulting from the construction of Codling Wind Park and the associated onshore works.

Some of the options we are examining include opportunities to reduce the number of Heavy Goods Vehicle (HGV) movements, for example through the use of barges and port deliveries.

During the operational phase of the project, it is expected that the onshore substation will be unmanned. The traffic generated during the operational phase will be minimal, with a small number of trips to the substation for inspection, monitoring and maintenance purposes.

Noise

Onshore works

As part of our EIA, we will be assessing the potential noise and vibration impacts associated with the construction of the onshore infrastructure. Our assessment will be informed by baseline noise monitoring that we will undertake at a number of representative noise sensitive receptors in the Poolbeg area. If required, mitigation measures will be put in place, so that the onshore infrastructure can be constructed within acceptable noise limits. Mitigation may include the temporary establishment of acoustic screens and the management of working hours and delivery times.

We will also be assessing noise impacts associated with the operation of the onshore substation. Predicted noise levels will be included within the EIA and, if required, we will consider mitigation such as refinements to the positioning of noise-generating equipment and acoustic housing to reduce noise levels to acceptable limits.

Offshore works

It is not expected that noise from the operational wind turbines will be audible over ambient noise levels onshore. However, the potential for wind turbines to generate noise will be further considered, and if required, assessed as part of the EIA.

Lighting

Onshore works

During construction, the onshore working areas will need to be appropriately lit to support safe working conditions. A lighting study will be undertaken as part of the EIA to determine how temporary light pollution from site can be minimised and managed to reduce overspill on adjacent areas.

At the onshore substation, lighting will be designed to comply with EirGrid specifications. Directional light fittings will be incorporated into the design to minimise any light pollution in the surrounding environment.

Offshore works

It is necessary to install aviation lighting, navigation lighting and operations and maintenance lighting on the wind turbines and offshore substations to ensure safe conditions for other sea users and aircraft once the wind farm is operational. The type of lighting, and the potential impacts from the lighting on landscape, seascape and visual receptors will be assessed in the EIA.

This consultation

We wish to assure stakeholders that we will be rigorously assessing the potential for impact of traffic, noise and lighting from the wind turbines, substations, and operations and maintenance of Codling Wind Park, and putting mitigation measures in place to address these if needed. However, if you have any specific issues or concerns, we encourage you to let us know.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition..

Air quality, soils and geology, and hydrology

Air quality

The potential air quality impacts associated with the construction of the onshore infrastructure will be assessed in the Environmental Impact Assessment (EIA). This assessment will focus on the main sources of pollutants, including dust and traffic-related emissions, and will identify mitigation measures to help minimise any negative effects on air quality.

Soils and geology

The potential impacts that the construction and operation of the project will have on the surrounding geological environment will be assessed in the EIA. The assessment will focus on earthworks, installation of piles, trenching and horizontal directional drilling to install the underground cables. We will seek to minimise impacts through the design of the project, and if required, we will also propose further mitigation measures that can be implemented during construction in the project's Construction Environmental Management Plan.

Hydrology and Flood Risk Assessment

The potential impacts on the surface water and groundwater environment will be assessed in the EIA. The project has undertaken site investigation works to gather information on the existing water environment, which has included water monitoring and collection of samples for analysis. Further site investigation works will be undertaken over the coming months.

The EIA will focus on the activities that could impact the existing water environment, such as surface water run-off, drainage and spillages of hazardous materials. We are seeking to minimise impacts through the design of the project, and a Construction Environmental Management Plan will be developed which will detail the mitigation measures to be implemented during the construction and operation of the project to minimise risks.

A Flood Risk Assessment will also be prepared, which will consider flood risk both to and as a result of the Codling Wind Park project. Measures required to reduce flood risk will be considered as part of the project design, including surface water drainage systems and measures to reduce the risk of coastal flooding from the Irish Sea.

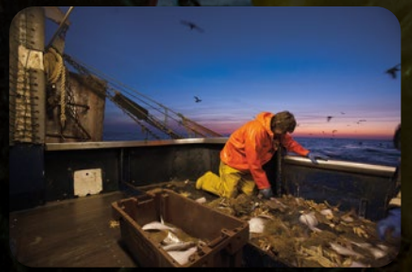
This consultation

We wish to assure stakeholders that we will be rigorously assessing the potential mpacts of the project on air quality, soils and geology, hydrology and putting mitigation measures in place to address these if needed. However, if you have any specific issues or concerns, we encourage you to let us know.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Fisheries

Understanding and mitigating the potential impact of Codling Wind Park on commercial fishing and other marine activities is one of our key priorities.



As such, the design of the project has been amended based on the fisheries data we have received to date. We want to engage and work with the fishing and marine communities to ensure we have sufficient information to minimise any potential impacts.

As part of our EIA, we are undertaking a commercial fisheries assessment which will consider the potential impact of the project on commercial fisheries.

We wish to work in collaboration with the local fishing industry and the long-term aim is for co-existence, whereby both our industries are able to operate harmoniously in the same area of sea. In the weeks and months ahead, we will therefore continue to engage and consult, seeking input and feedback to ensure the views of the fishing community are understood.

The proposed wind turbine layouts presented at this consultation have been designed to minimise impacts and to avoid areas of high fishing density where practical; this design refinement work will continue, with the aim of further reducing impacts where practicable.

Following construction of the wind farm, it is anticipated that no exclusion zones will be implemented above the subsea cables or within the array site (subject to legislation) for static fishing.

Construction and installation

During site investigations and construction activities, temporary safety zones are likely to be implemented in line with health and safety legislation and will be clearly communicated to fishers and other marine users well in advance.

During the construction and cable installation process, it is anticipated that there may be some temporary disturbance to fish and shellfish species. This is being assessed as part of the project's EIA and Appropriate Assessment (AA), which will be undertaken by independent technical specialists.

Subsea cables that connect the wind turbines, and that connect the wind farm to the landfall location, will be buried to sufficient depth to minimise any long-term effects on local species, wherever possible. Any cables that cannot be buried to sufficient depth will be protected using appropriate cable protection materials.
We are also looking to incorporate appropriate features into cable protection materials to encourage habitat development, including for whelk and other benthic species.

We will continue to engage with the local fishing industry on an ongoing basis, and in particular in advance of activities, to share proposed plans and options and to gather valuable feedback.

Further information can be found by contacting our Fisheries Engagement Manager on: **flo@codlingwindpark.ie.**

This consultation

We would like to hear feedback from stakeholders in the fishing and marine communities on how you think we can effectively co-exist with fisheries throughout the construction and operational phases of the project.

We are also interested to hear ideas from the fishing community on how the Community Benefit Fund could support initiatives that enhance the fishing industry locally and help to ensure its long-term sustainability. Ideas on other potential collaboration opportunities are also welcome.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Community engagement and benefits

Working with the communities closest to the project is an important part of how we want to develop Codling Wind Park.

We are committed to developing the project in the right way, bringing benefits to the environment, the economy and local communities for generations to come.

As well as the wider benefits offered by Codling Wind Park in terms of reduced energy costs, greater energy security and reduced carbon emissions, communities closest to the project – including those from Greystones to Wicklow Town and the communities in the Poolbeg area – also stand to benefit through different community initiatives.

Community Benefit Fund

A key feature of the Offshore Renewable Energy Support Scheme (ORESS) is that all offshore wind projects will establish a Community Benefit Fund to be used for the wider economic, environmental, social, and cultural well-being of the local community.

Codling Wind Park will establish a Community Benefit Fund which will be available to the communities closest to the project. The boundaries for this fund have not yet been defined, but there will be extensive consultation locally as part of this definition process.

A local Community Fund Committee will also be established, to oversee the management of the fund, in conjunction with an experienced, independent Fund Administrator.

This consultation

We welcome all feedback on our community/planning gain initiatives, Community Benefit Fund, and sponsorship opportunities.

In particular, we welcome your feedback on how the Community Benefit Fund can work for the community, including the type of activities and groups it might support, how access to funding can be made as fair as possible, and who should be involved in making decisions on how funding should be distributed.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Community engagement and benefits

This will be an annual, multi-million Euro fund available to communities and groups across the project area, which will support the delivery of sustainable community benefits and create a positive legacy. It will last for the 20-year duration of the ORESS contract.

The full ORESS Terms and Conditions, including details of the Community Benefit Fund and its proposed operation, can be found on the Department of the Environment, Climate and Communications website here.

Sponsorship

Codling Wind Park is delighted to be providing ongoing support to local communities. We have already established a number of partnerships and sponsored a range of initiatives, including a new defibrillator for Greystones Marina, water refill stations at Wicklow Tennis Club, two new kayaks for Greystones Kayaking Club, jerseys for two local GAA teams and support for the Taste of Wicklow Food Festival and the Taste of Greystones Regatta.

In 2021, we identified Wicklow Hospice as a charity partner and have supported their excellent work through fundraising events and donations.

Picture captions

Top left
Ms Lally and Sarah-Jane from 6th Class in St Kevin's NS, Greystones, testing out Sarah-Jane's wind turbine.

Top right
Members of the Codling Wind Park team, completing a sponsored hike up the Little Sugar Loaf in support of Wicklow Hospice.

Bottom left
Liz Dillon, Codling Wind Park, at Taste of Wicklow.

Bottom right
Two new kayaks, sponsored by Codling Wind Park, being presented to Greystones Rowing Club.

Economic benefits

Codling Wind Park represents one of the largest energy infrastructure investments in Ireland this decade. The development and operation of Codling Wind Park is set to generate a large number of jobs and support local and national economic development.

Around 1,000 jobs are expected to be created during the construction phase of the project, including development of the offshore and onshore components of the project.

A total of 75 new, local, long-term jobs will be created.

A total of 115 jobs are expected to be created through the construction and operation of Codling Wind Park's Operations and Maintenance base in Wicklow Port. The new facility will see the creation of 75 new, long-term, local jobs in a variety of maintenance, technician, engineering, administration, and other roles. Construction of the new base will see the creation of an additional 40 temporary jobs.

In addition to employment, the project is also expected to generate significant training and development opportunities. The project has been engaging with Wicklow County Council, Kildare-Wicklow Education and Training Board, IT Carlow, the South-East Technological University and other education providers, as well as with agencies and industry bodies such as Enterprise Ireland and Wind Energy Ireland to explore opportunities for collaboration in the areas of training courses, apprenticeships and other initiatives. This will continue as the project progresses and will also involve the large "Tier 1" (or main) contractors that will be appointed to build the project.

Supply chain

During the development, construction and operational phases of a major energy infrastructure project like Codling Wind Park, there will be significant opportunities for contractors, sub-contractors, suppliers and facilities and service providers.

Once the Tier 1 contractors have been appointed, we will arrange engagement events to introduce them to the Irish supply chain and their capabilities.

We would like to hear from businesses who would like to be considered for work on the Codling Wind Park project. If you would like to learn more, please register your details on our website, www.codlingwindpark.ie or speak to a member of the Codling Wind Park team.

This consultation

We want to hear any thoughts you may have on the employment, training, or supply chain opportunities that could be presented by Codling Wind Park.

Have your say by filling out our feedback form in the 'Providing feedback' display at the end of this exhibition.

Ongoing engagement and next steps

Thank you for visiting our exhibition, we hope you found it informative. We would like to invite you to complete a feedback form to provide us with any information you think relevant to our project development process.

We will consider all feedback received as project development continues.

Environmental assessments and project design will continue in the coming months. Later this year, Codling Wind Park will participate in the Offshore Renewable Electricity Support Scheme (ORESS) process, and following this, the aim is to submit a development permission application to An Bord Pleanála for the project. We will hold a third phase of public consultation in advance of this, during which we will share our latest plans. This will provide an opportunity for the public to see how their feedback has been considered.

Listening to and engaging with the public and all our stakeholders is an important part of the development of our project at all stages, not just during public consultation.

The Codling Wind Park team remains available to speak to anyone who has any questions and wishes to learn more about the project. We will continue to attend community and industry events and to engage with our stakeholders in the local community in the months and years ahead.

To sign up for project updates, book an appointment at one of our information clinics, or view the latest project news, please visit our website at www.codlingwindpark.ie.

Read our latest newsletter

You can also continue to contact us by email and by phone at:
contact@codlingwindpark.ie

Phone: 087 1011 473

Or speak to a member of our project team:

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