FOR A BETTER **WORLD OF ENERGY**

ARKLOW BANK WIND PARK PHASE 2
PUBLIC CONSULTATION

sse Renewables

FOR A **BETTER FUTURE**

At SSE Renewables we're for leading Ireland's offshore wind energy ambition. We're for building a cleaner energy future. And - through the development of Arklow Bank Wind Park Phase 2 off the coast of County Wicklow - we're for creating new local jobs in Arklow, Wicklow and along the East Coast to drive our green recovery.

ABOUT SSE RENEWABLES

We're SSE Renewables, a leading developer, owner and operator of renewable energy across Ireland and the UK.

Part of the FTSE-listed SSE plc, we employ around 1,000 people in Ireland and over 10,000 in the UK, all of whom believe in building a better world of energy. We're the largest owner and operator of renewable energy in Ireland and the UK, and through our sister company SSE Airtricity, the wind energy we produce here supplies more Irish homes and businesses than any other company.

We're the UK's largest developer and operator of offshore wind farms. Now, through our plans to develop the next phase of Arklow Bank Wind Park, we're leading Ireland's drive to generate the offshore wind energy we need to fight climate change and create local jobs as part of a green recovery.

BENEFITS OF ARKLOW BANK WIND PARK PHASE 2

- Reduce Ireland's annual carbon emissions by around 1% - offsetting over half a million tonnes of harmful CO2^
- Create around 80 full-time local operational jobs for the lifespan of the windfarm
- Generate 520MW of electricity - enough to power almost 450,000 homes with green energy^
- Contribute millions of euro annually in Community Benefit Funding and local commercial rates
- Contribute to Ireland's 2025 Climate Action Plan target of 1GW of offshore wind by 2025
- Capital investment of between €1bn and €2bn to power our green recovery

We have created a dedicated project website where you can find out more information about our vision for the next phase of Arklow Bank Wind Park.

www.sserenewables.com/arklowbank

ABOUT THE PROJECT

Arklow Bank Wind Park Phase 2 will be located off the coast of Arklow, Co. Wicklow. The 520MW project is the next phase of wind energy development at Arklow Bank. Phase 1 of the Wind Park was constructed in 2003/04 consisting of seven wind turbines with a capacity of 25.2 MW. Phase 1 is owned and operated by GE Energy under a sublease to the foreshore lease and remains the first and only operational offshore wind farm in Ireland.

Now, SSE Renewables is proposing to invest between €1 billion and €2 billion to develop Arklow Bank Wind Park to its full potential.

We plan to create around 80 full-time jobs to support the operation of the new offshore wind farm. These local jobs will be sustained over the lifespan of the wind farm and will be based out of a new purpose-built Operations Base at Arklow Harbour's South Dock.

During construction and operation, we plan to support local businesses across South Wicklow and North Wexford, including companies in the supply chain in Wicklow Port and Arklow Harbour.

The project has a Foreshore Lease and with an export capacity of 520MW the project will power almost 450,000 homes annually and offset over half a million tonnes of carbon emissions each year^.

The foreshore lease area is situated 6km to 13km off the Co. Wicklow coastline, to the east of Arklow, and covers an area approximately 27km long and 2.5km wide. Arklow Bank is in shallow water in the Irish Sea, making the foreshore lease area ideally suited to the efficient development of offshore energy infrastructure.

The existing foreshore lease provides consent for up to 200 wind turbines. However, advances in turbine technology over the past 15 years mean the anticipated export capacity of the wind farm can be achieved through the development and installation of up to 76 turbines in the same foreshore lease area.

^ 433,829 homes powered based on projected capacity, typical projected wind load factor of 40%, and typical annual consumption (4,200kWh). Quoted 530,225 tonnes of carbon emissions abated based on projected annual MWh output and latest average CO2 Emissions (0.291t/MWh) in the All-Island Single Electricity Market, and published by the CRU in its Fuel Mix Disclosure and CO2 Emissions for 2018, September 2019.

PUBLIC CONSULTATION

During October and early November 2020 we are opening a Public Consultation and inviting members of the public to provide feedback on the offshore infrastructure and onshore grid infrastructure elements of the project (we will launch a separate consultation on the Operations and Maintenance Facility in 2021).

This information booklet is designed to provide you with information about our plans for Phase 2 of Arklow Bank Wind Park during this Public Consultation period. We hope that after you read this booklet you will have all the information you need about our plans for Arklow Bank Wind Park, including all the key elements of the project – from the proposed offshore wind farm out at sea, to the Onshore Grid Infrastructure needed to connect the wind farm to the grid, and the creation of our new purpose-built Operations and Maintenance Facility (OMF) at Arklow Harbour's South Dock which will play home to our 80 full-time employees.

We welcome your feedback during this Consultation process. Your feedback will help inform our plans for the overall project, in particular two separate applications which will allow the project to proceed. The first application will likely be to An Bord Pleanála (ABP) and will be for the Onshore Grid Infrastructure required to connect the wind farm to the national grid. The second application is to the Department of Housing, Planning and Local Government (DHPLG), which oversees our foreshore lease and is an application under our foreshore lease requesting permission to construct the Offshore Infrastructure required for the wind farm.

In 2021, we will submit an application to Wicklow County Council for planning permission for the onshore elements, and an application to Department of Housing Planning and Local Government for any marine elements, of our proposed Operations and Maintenance Facility to be developed at Arklow Harbour's South Dock; before we do so, we will advertise and launch a separate consultation process to get local feedback on the proposed Operations and Maintenance Facility and to refine our plans prior to submitting the final planning applications.

ENVIRONMENTAL IMPACT ASSESSMENTS

We are currently preparing two Environmental Impact Assessment Reports (EIAR) to accompany the separate onshore grid infrastructure planning application to An Bord Pleanála and the application to DHPLG to permit construction of the offshore infrastructure for the wind farm. In preparation for each of the Environmental Impact Assessment Reports, we have published individual scoping documents which set out the information that will be contained in the Reports, and the methods that will be used to gather and assess that required information. If you would like to identify issues and environmental topics that you feel should be addressed during this process please contact us.

You can view the individual onshore grid infrastructure and offshore infrastructure EIA Scoping Reports at: **www.sserenewables.com/arklowbank**

Each onshore and offshore EIA Scoping Reports includes:

- A description of the proposed project to inform the public and stakeholders
- Clarification of what issues and topics the EIAR should consider when assessing the project
- Identification of potential direct and indirect impacts that the EIAR will examine
- Identification of the method and the criteria to be used in predicting and evaluating any potential impacts
- Identification of available information and data to inform what additional environmental or other investigations will be required
- Mitigation measures to be considered for the project

The Offshore EIA Report will consider:

- Coastal Processes
- Airborne Noise
- Air Quality & Climate
- Benthic Ecology
- Fish, Shellfish and Sea Turtle Ecology
- Marine Mammals
- Offshore Ornithology
- Commercial Fisheries
- Shipping and Navigation
- Civil and Military Aviation
- Seascape Landscape and Visual Impact
- Marine Archaeology
- Infrastructure and Other Users
- Population and Human Health
- Major Accidents and Natural Disasters

The Onshore EIA Report will consider:

- Air Quality
- Climate
- Land and Soils
- Water
- Noise and Vibration
- Biodiversity
- Traffic and Transportation
- Landscape and Visual
- Archaeology, Architectural and Cultural Heritage
- Resource and Waste Management
- Material Assets
- Population and Human Health
- Major Accidents and Natural Disasters

Appropriate Assessment (AA) Screening Reports and Natura Impact Statements (if required) will be submitted with the application for planning approval for the onshore grid infrastructure, likely to An Bord Pleanála, and in relation to the application to the Department of Housing Planning and Local Government to allow construction of the offshore wind farm infrastructure.

PROJECT TIMELINE:

- Arklow Harbour selected for Operation and Maintenance Facility (June 2020)
- Public Consultation (October/ November 2020)
- Submission of consent application to ABP and supportive documents to DHPLG (December 2020)
- Submission of Operations and Maintenance Facility consent applications to Wicklow Co Co and DHPLG (March 2021)
- Planning decisions expected (Spring/Summer 2021)
- Grid Offer received (Summer 2021)
- Secure Government support scheme via Renewable Energy Support Scheme (RESS) (Winter 2021)
- Financial Close/Greenlight to Proceed (Spring 2023)
- Appoint Contractors & hold Meet the Buyer Events (2023)
- Construction (2023/2024/2025)
- Project Completion (2025)

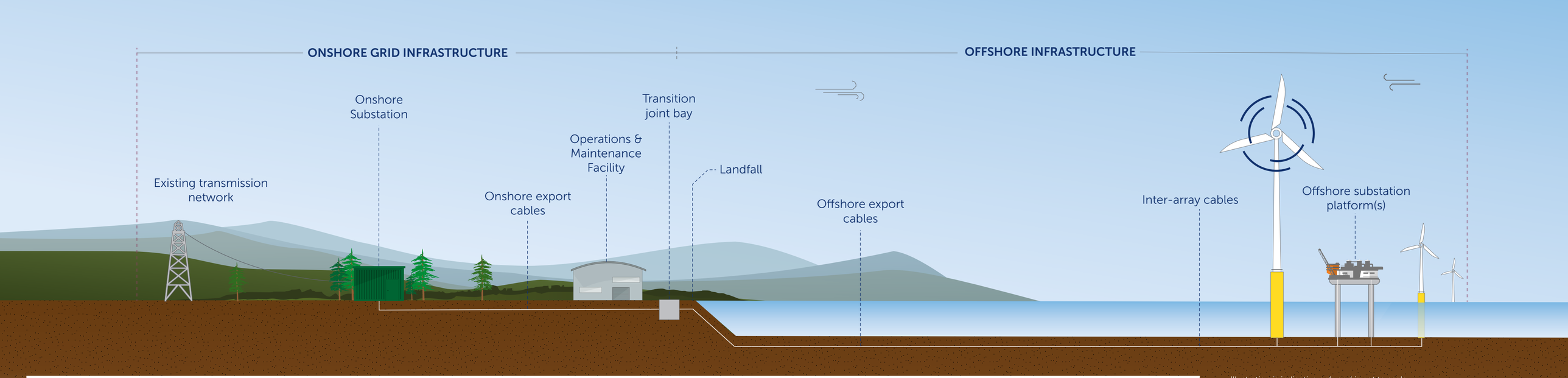


Illustration is indicative only and is not to scale.

There are three major components of this project:

1. OFFSHORE INFRASTRUCTURE

a. Up to 76 wind turbines, each comprising a foundation, tower, nacelle and rotor assembly.

b. Up to two Offshore Substations Platforms (OSP) and foundation substructures.

c. A network of inter-array cabling; and

d. Two offshore export cables.

2. ONSHORE GRID INFRASTRUCTURE

a. Two underground electricity cables will connect from the landfall to the onshore substation

b. A new 220kV onshore substation and connection to the transmission system to distribute the energy across Ireland.

3. OPERATIONS AND MAINTENANCE FACILITY (OMF)

A new purpose-built maintenance base at Arklow Harbour's South Dock will be used to service and maintain the windfarm infrastructure once operational. Around 80 full-time local employees will be based out of this location. The OMF will consist of:

a. Office, parking and warehousing facilities for staff operatives

b. Marine infrastructure, including pontoons and berths for Crew Transfer Vessels (CTV's)

Figure 1.

OFFSHORE GRID INFRASTRURCTURE

Phase 2 of Arklow Bank Wind Park will be located on and around the Arklow Bank, approximately 6 to 13 km from the shore. The foreshore lease area for the wind farm covers an area of seabed approximately 27 km long and 2.5 km wide. We are exploring a number of different turbine models and layouts with a maximum number of 76 turbines and a maximum tip height of 197m. An indicative turbine layout is shown in Figure 1.

Up to two offshore substation platforms will be installed and two subsea cables will be laid in the seabed to connect the wind farm to the shore.

Environmental Impact Assessment

We are currently preparing an Environmental Impact Assessment Report for submission to the Department of Housing Planning and Local Government. In preparation, we have published a scoping document which sets out the information that will be contained in the Report, and the methods that will be used to gather and assess that required information.

You can view the individual offshore EIA Scoping Report at:
www.sserenewables.com/arklowbank

A number of topics have been identified in the offshore EIA Scoping Report for inclusion in the EIAR including:

Seascape, Landscape and Visual Impact

These will be assessed in the EIAR and will consider the potential effects the project could have during construction, operation, maintenance and decommissioning (when the wind park ceases operation). Visualisations from various viewpoints along the coastline from areas around Wicklow, Arklow and Courtown have been prepared and can be viewed on the project website at **www.sserenewables.com/arklowbank**

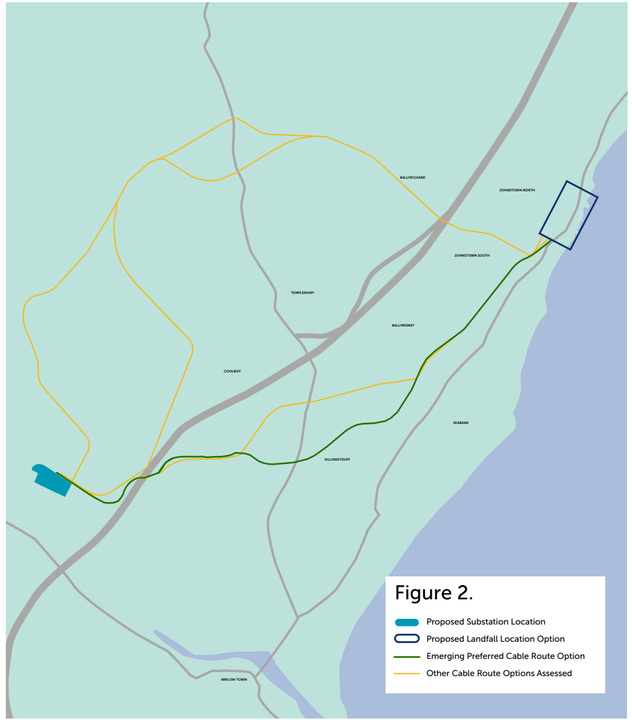
Marine Ecology

A number of aspects of marine ecology will be assessed in the EIAR. These include the benthic or sea-bed ecology; fish, shellfish and sea turtle ecology; marine mammals; and offshore ornithology (birds).

Other Topics

A number of other topics will be assessed in the EIAR. These include Coastal Processes, Population and Human Health, Air Quality and Climate, Commercial Fisheries, Airborne Noise, Shipping and Navigation, Civil and Military Aviation, Marine Archaeology, and Infrastructure and Other Users.

ONSHORE GRID INFRASTRUCTURE



Public update, as of 1 November 2020: The map above accurately indicates all cable route options. This map replaces a map previously published in October 2020 which incorrectly indicated one of the cable route options. "

Site selection process:

As part of the development process, a series of environmental and technical assessment studies were completed on several potential substation sites and cable routes to determine the option most suited for the proposed development and to ensure it was designed sympathetically to the local environment and with the least impact.

Landfall

Arklow Bank Wind Park Phase 2 has consent in the foreshore lease for two landfall locations for the export cable coming ashore from the offshore wind farm. The Northern landfall location is at Johnstown North, approximately 5km northeast of Arklow town, close to Ennereilly Beach. The Southern landfall location is at Arklow Harbour, adjacent to the site of the proposed Irish Water Treatment Plant.

These options were reviewed and assessed as part of a feasibility assessment. Following the options assessment, the northern landfall at Johnstown North was identified as the preferred landfall location. The residential and civic environment surrounding the southern landfall, as well as other technical aspects, informed this decision.

Our preferred approach to installing the cable at landfall is to use a specialist cable burial method called horizontal directional drilling (HDD). This approach enables us to install the cables underground while minimising disturbance to the land above.

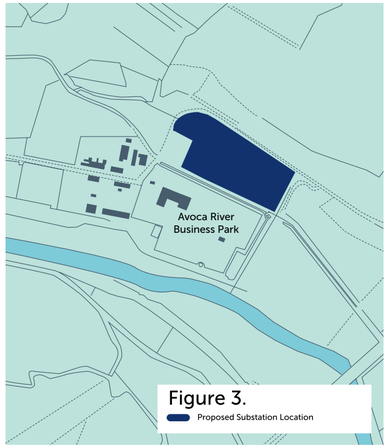
Underground Cable Route

A cable route assessment has been conducted identifying and recommending an emerging preferred underground route from landfall to the preferred substation location, to be brought forward as part of the consenting process, likely with An Bord Pleanála.

An area of approximately 16km2 was assessed from an environmental, engineering and consenting perspective.

These assessments sought to determine the emerging preferred route between the landfall and the preferred substation location, with the least impact on environment, archaeology, land use and residents. The emerging preferred route is outlined in Figure 2 and we are currently progressing engagement with all landowners along this route. The route itself is approximately 5km in length and the cables will be buried underground. They will primarily be buried in a trench through agricultural fields however at certain constraint locations such as road and stream crossings it will be necessary to use specialist cable burying technology such as a Horizontal Directional Drill, to minimise disturbance to the land above.

Substation



We have identified and evaluated a number of potential sites for the proposed substation in the Arklow area. This included assessments of various constraints including potential environmentally protected and sensitive sites, biodiversity considerations such as habitats and flora and fauna, zoning objectives and site history, visual impact, noise impact (both during construction and operation), archaeology and cultural heritage, proximity to residential and other sensitive locations, proximity to other planned developments and water quality. Other constraints such as public rights of way, proximity to national grid infrastructure, transport and access routes, ground conditions and flood risk were also considered.

The preferred site location for the proposed 220kV substation is at the Avoca River Business Park near Shelton Abbey. This site was selected based on its accessibility, industrial history, and services and utilities available on site. The site is zoned for employment and is in close proximity to the existing 220kV overhead electricity line.

A Gas Insulated Substation (GIS) was chosen for the site, as it has a smaller footprint, reduced visual impact and less maintenance requirements during operation. The substation consists of various components. These include two GIS building, transformers, harmonic filters, ancillary plant and a control building.

We have been actively engaging with a number of landowners and the emerging preferred substation location is outlined in Figure 3.

Landscape and Visual

A landscape and visual assessment has been carried out to determine the impact the proposed development will have from a visual perspective.

Visualisations of the substation from various viewpoints have been prepared. The viewpoints selected have been taken from carefully selected vantage points and are available on www.sserenewables/arklowbank

There is the potential for visual impact during construction along the cable route and at the landfall location, result of vegetation clearance, and trenching activities. Any impact is predicted to be minor and temporary, as land and vegetation will be reinstated.

Onshore Ecology

Ecology surveys have been carried out and the data will be assessed to ensure that the final onshore elements of the proposal are designed sympathetically to the local environment and wildlife.

These surveys covered the landfall site, the cable route, the substation location and connection to the national grid network.

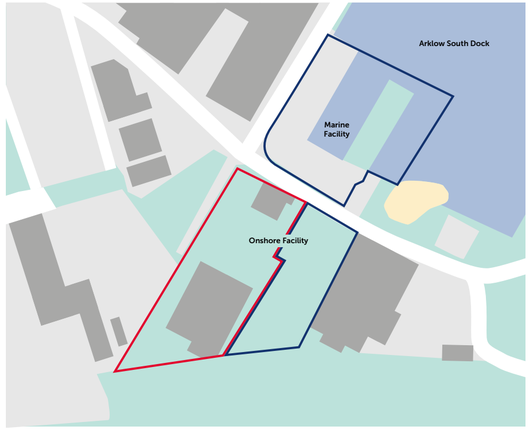
As well as birds and wildlife, these assessments also include bats, badgers, otters, fish stock and amphibians.. Consideration will be given to local vegetation, including hedgerows, trees and important habitats. The results of the surveys will be used to avoid, reduce and offset any impacts on biodiversity through sensitive design and mitigation measures as required.

Noise

The proposed underground cable route passes through predominately rural areas. The substation is located in an industrial setting adjacent to the M11 motorway, both of which have existing background noise levels.

The construction at the landfall, cable route, and the substation has the potential to give rise to temporary noise. During operation, there will only be noise from the electrical and mechanical plant of the substation, most of which will be located indoors in the GIS building which will be located in an already industrial setting. Background noise monitoring will be undertaken at the preferred substation location, along the cable route and also at the landfall location. Noise modelling will be completed to inform the EIAR and to ensure noise emissions from both the construction and operational aspects of the developments will fall within acceptable limits.

OPERATIONS AND MAINTENANCE FACILITY (OMF)



In June 2020, after detailed engineering analysis and engagement with local stakeholders, Arklow Harbour was identified as the preferred location for the wind farm's Operations and Maintenance Facility (OMF).

The OMF will act as the support base for both the onshore and offshore elements of the Arklow Bank Wind Park Phase 2. The base will be used to control, operate and maintain the wind farm its operational lifetime.

The OMF is made up of two primary components which will service the project on a daily basis:

- Onshore facility: building with offices for 80 employees, meeting rooms, warehousing, welfare facilities and associated car parking
- Marine facility: berthing for the Crew Transfer Vessels used to service the wind farm

We have secured an option to purchase an industrial yard (shown in red on this figure) and a separate option to step into an existing lease on adjacent lands owned by Wicklow County Council. Both sites are collectively known locally as "The Old Shipyard". A third option agreement has been secured to step into another existing Lease with Wicklow County Council for an area of quayside in the dock, to facilitate future berthing and pontoons.

WHAT IT SAYS IN THE PAPERS

We have been actively developing our plans for the next phase of Arklow Bank Wind Park over the last two years. Our project plans and our community sponsorships have been making positive headlines locally and nationally.


THE IRISH TIMES

Sailing: Wicklow Sailing Club net new sponsor for Round Ireland Race

SSE Renewables revealed as backers of popular 704 mile event


Arklow Harbour will be future base for SSE offshore wind farm


COMMUNITY HEROES ARE HONOURED BY ARKLOW CREDIT UNION

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Times

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SSE Renewables backs Meals on Wheels Covid response in Arklow and Wicklow

SUPPORTING THE COMMUNITY

SSE Renewables is Ireland's largest generator of wind power and provides voluntary community funding to community groups near each of our wind farms across the country. Since we first began community funding in Ireland in 2002, we have awarded over €10 million from our operational wind farms supporting more than 4,000 local projects. Annually we share approximately €2 million with local community projects across the island.

We are committed to providing a Community Fund for Arklow Bank Wind Park Phase 2, once it enters operation. Our intention is that this Fund would support communities all along the coastline from Wicklow Town to Arklow and on to Courtown.

In order to progress progress Phase 2 of Arklow Bank Wind Park SSE Renewables must must secure the support of the Government, through the Renewable Energy Support Scheme (RESS), in 2021. As part of this process Government will determine the parameters for a Community Fund for offshore wind. We look forward to working with the Government as these parameters are developed.

Our support for the community doesn't wait until the wind farm commences operation. During the development phases of our projects we sponsor many local community groups, projects and organisations, especially those with a marine focus. In the last two years we have been pleased to support Seal Rescue Ireland's education programme, Wicklow Rowing Club's boat restoration project, Meals on Wheels Arklow and Wicklow as part of their Covid-19 response and Arklow RNLI's Maritime Festival. If you would like to find out more about how we can help your group or organisation, please contact our dedicated Community Engagement Manager, Deborah Coleman, on 087 1457603, or by email at Deborah.coleman2@sse.com (Mon-Fri, 9am-5pm).

Wicklow Rowing Club

Arklow RNLI

YOUR TEAM


Barry Kilcline
Director of Development Ireland


James O'Hara
Project Manager


Jason Cooke
Head of Communications and Brand


Kaj Christiansen
Development Package Manager


Louise Glennon
Public Affairs Manager


Deborah Coleman
Community Engagement Manager


Brendan Dillon
Fisheries Liaison Officer

HAVE YOUR SAY

We have been engaging with local stakeholders in relation to the Arklow Bank Wind Park Phase 2 for a number of years.

We are committed to working with local communities and stakeholders to gather feedback and local information that will inform the project on an ongoing basis. Local knowledge is key to us so that we understand the issues that are important to the community and can refine our plans accordingly.

We commit to keep you informed as the project develops and will endeavour to seek your feedback in relation to key project activities, where possible.

We welcome your feedback during this consultation process and throughout the project lifecycle.

Find out more

We have created a dedicated project website where you can find out more information about our vision for the next phase of Arklow Bank Wind Park. **www.sserenewables.com/arklowbank**

There you will find out more information on all of the different elements of the project, including:

- The offshore infrastructure – including the Environmental Impact Assessment Scoping Report
- The onshore Grid Infrastructure – including the Environmental Impact Assessment Scoping Report
- Our plans for our new purpose-built Operations and Maintenance Facility

You will also find the feedback form which you can complete and submit online or download and print for submission by post. We will gratefully accept comments and submissions until Wednesday 11, November, 2020.

Join us for an Online Community Briefing
Ordinarily we would like to hold a public event in a local hotel or town hall, to brief you on this project in person. Unfortunately, due to Covid-19 restrictions we are not permitted to hold such public events.

As a result we are hosting a live Online Community Briefing event on Wednesday, 4 November, at 7pm via **www.sserenewables.com/arklowbank**, where key members of the team will provide a project briefing. You will be able to meet the team, hear more about the project and ask any questions that you might have about the project.

Call, text, or email our Community Engagement Manager:
Deborah Coleman is our dedicated Community Engagement Manager for Arklow Bank Wind Park. Locally-based, Deborah is available Monday to Friday between the hours of 9am and 5pm, or alternatively by appointment outside of these hours.

Deborah is contactable on **087 1457603**, or by email at **Deborah.coleman2@sse.com**

Public Exhibition Spaces
Members of the public can find out more about our plans for Arklow Bank Wind Park Phase 2 by visiting our public exhibitions at:

- Bridgewater Shopping Centre, North Quay, Arklow
- Arklow Library, Main Street, Arklow
- Town Hall, Market Square, Wicklow Town
- Seamount/Main Street, Courtown

Write to us! If you would like to send us a letter or post your feedback form to us. Mark the envelope for the attention of Deborah Coleman, Arklow Bank Wind Park, and send it to:
SSE Renewables,
South County Business Park,
Red Oak South,
Leopardstown,
Dublin 18,
D18 W688.

^Exhibitions are unmanned due to Covid-19 restrictions.
^ Exhibition opening times are in line with venue opening hours. For latest information including details of opening hours, visit www.sserenewables.com/arklowbank
^ Exhibitions subject to prevailing Covid-19 restrictions. Check website for latest updates.

SSE Renewables, South County Business Park, Red Oak South, Leopardstown, Dublin 18, D18 W688.