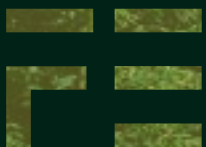


Scart Mountain Wind Farm

Project Brochure
November 2023



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Introduction

The proposed Scart Mountain Wind Farm is a FuturEnergy Ireland project in Co. Waterford.

FuturEnergy Ireland is a leading Irish wind developer established in 2021 as a stand-alone joint venture between Coillte and the ESB. The company was formed with an aim to maximise the potential of Ireland’s unique wind and land resources and accelerate Ireland’s transformation to a low carbon energy economy.

FuturEnergy Ireland is targeting the delivery of 1GW of renewable energy by 2030 through the development of responsible, carefully considered onshore wind projects. This would power an estimated 730,000 homes annually and make a significant contribution to Ireland’s commitment to produce 80% of electricity from renewable sources by the end of this decade.

There are currently 19 live projects across the country in the FuturEnergy Ireland portfolio, including Scart Mountain Wind Farm.

The project team

The team directly involved in the proposed Scart Mountain Wind Farm includes Project Manager Emer Campbell, two Community Liaison Officers (CLOs), John O’Halloran and Liam Cleary, as well as several specialists in the areas of grid, stakeholder management, wind resource, planning and policy.

TOBIN Consulting Engineers is leading a multidisciplinary team in carrying out studies, design and preparation of the planning application and Environmental Impact Assessment Report (EIAR) for Scart Mountain Wind Farm on behalf of FuturEnergy Ireland. TOBIN has an experienced and enthusiastic team of planners, environmental scientists, engineers and other in-house specialists who undertake an extensive range of projects. Areas of expertise are underpinned by the principles of sustainability, reducing carbon footprint, managing resource use, protecting biodiversity and improving quality of life with a focus on stakeholder involvement from the outset.

As an innovative consultancy firm that covers all sectors of the energy and environment market, TOBIN has significant experience and

involvement in the development of national policy, regulation and standards and can advise clients on all stages of a project’s lifecycle from project management to operation.

This brochure has been prepared to:

- Describe the constraints-led design process, which explains how the wind farm layout has evolved.
- Present the final turbine layout that will be submitted with the wind farm planning application.
- Share information about the grid connection route, which will be submitted under a separate planning application.
- Outline the many ways in which this project could bring positive benefit to the local area.
- Explain the planning system and how to engage with this process.
- Provide details of the next steps for this project.

Photomontage view of the proposed turbines from Knockmealdown summit

A Virtual Tour, which includes a full set of photomontages of the proposed project from different viewpoints and information from the Environmental Impact Assessment Report, is available at <http://www.scartmountainwindfarm.ie>

The Context

Our planet is warming at a dangerous rate. This summer, extreme weather saw climate-related records smashed: July 2023 was the hottest ever recorded in human history, which led to drought, heatwaves and wildfires. Here in Ireland, Met Éireann registered the warmest June followed by the wettest July on record. Glaciers are shrinking, sea levels are rising, and animal and plant species face extinction.

According to the Environmental Protection Agency, Ireland will fall far short of meeting its climate targets. The country is predicted to achieve only a reduction of 29% in greenhouse gas emissions by 2030 compared with the national target of 51%. Urgent action is needed. A key pillar of this will be an increase in renewable energy to replace the oil, gas and coal that we burn to produce electricity.

Renewable energy generation is central to the Government's energy policy, which is targeting 80% of electricity from renewable sources by 2030. The Government is committed to rapid decarbonisation of the energy sector and its

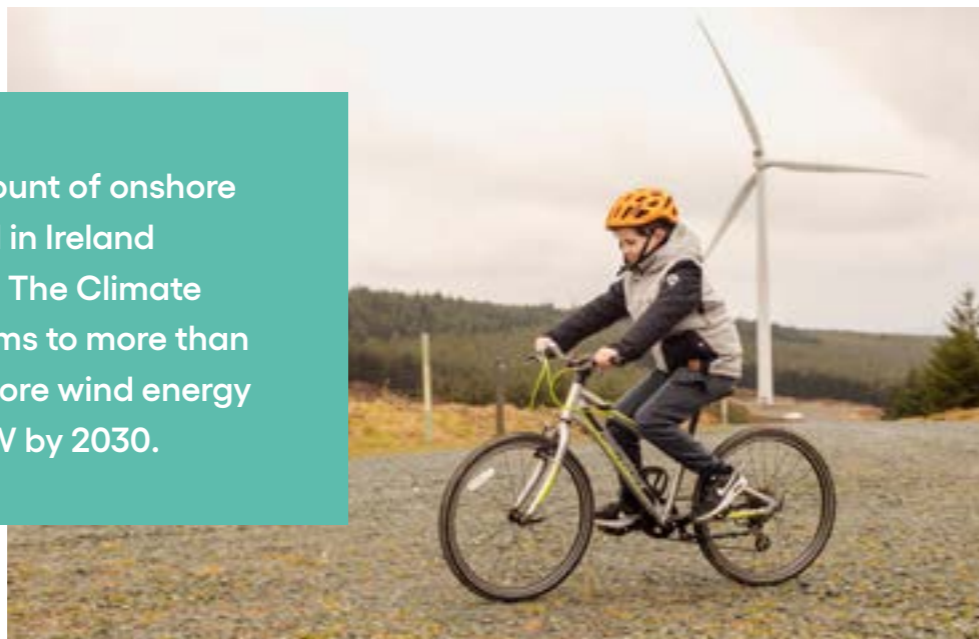
goal is to achieve net zero emissions by 2050. In May 2022, the amount of onshore wind energy installed in Ireland reached 4,332.5 MW. The Climate Action Plan (2023) aims to more than double Ireland's onshore wind energy capacity to 9,000 MW by 2030.

The further development of renewable energy sources will also improve Ireland's energy security. Energy security is vulnerable to international price increases, which are being exacerbated by the conflict in Ukraine. This in turn is having an unprecedented inflationary effect across our economy.

EU and national energy policies are seeking to rapidly ramp up renewable generation capacity to reduce our dependence on imported fossil fuels and support more stable and affordable long-term energy prices.

Scart Mountain Wind Farm is being proposed, in part, as a response to these challenges and it has the potential to contribute greatly to these causes.

In May 2022, the amount of onshore wind energy installed in Ireland reached 4,332.5 MW. The Climate Action Plan (2023) aims to more than double Ireland's onshore wind energy capacity to 9,000 MW by 2030.



Raheenleagh Wind Farm, Co. Wicklow

Why onshore wind?

Wind energy is the largest contributing source of renewable energy in Ireland. It is Ireland's largest and cheapest renewable electricity resource, which accounted for 34% of all electricity generated in Ireland in 2022. In total, wind energy produced 13.213 gigawatt hours (GWh) of electricity last year, which is equivalent to the electricity consumption of nearly three million Irish families.

Onshore wind energy is a clean fuel source. Unlike conventional power plants that burn combustible fossil fuels, wind turbines do not produce atmospheric emissions that cause acid rain or greenhouse gases. Wind energy is a free, inexhaustible domestic natural resource, available in abundance in Ireland.

As an operating wind farm occupies a relatively small proportion of an overall site area — less than a 3% footprint — many other land uses can co-exist such as commercial forestry, farming, recreation and biodiversity management.

Other renewable energy technologies such as offshore wind and solar are also required to meet national renewable energy targets. As well as increasing onshore wind capacity to 9 GW, the Climate Action Plan calls for 8 GW of grid-scale solar and more than 7 GW of offshore renewable energy by 2030.

Why this project?

The proposed Scart Mountain Wind Farm is located in an area known as Scart Mountain, approximately 4km northeast of Cappoquin in Co. Waterford.

The total wind farm site extends to approximately 976 hectares, of which a significant area is an operational commercial forest owned by Coillte. The remaining land is third-party property.

The suitability of the site can be attributed, in part, to the following characteristics:

- The site is in an accessible location for connection to the National Electricity Grid via existing electrical substations in the local area.
- There are good annual average wind speeds in the area.
- Setback distances from houses can be achieved to align with the latest government guidance.
- There is a network of existing forestry roads within the site that can be upgraded and utilised for the wind farm.

- The majority of the land use on the site can continue and co-exist with an operational wind farm.
- The site is largely covered in commercial conifer forestry which is not a rare or valuable habitat type.
- The proposed wind farm site is not in a Special Protection Area (SPA) or a National Heritage Area (NHA). The nearest SPA, Blackwater Callows SPA, is more than 9km west while the nearest National Heritage Area is the Glenboy Wood pNHA, approximately 1.2km north of the proposed site.

Our commitment to you

From the outset, the Scart Mountain project team has placed a strong focus on open communication with the local community. Throughout our engagement, we have actively encouraged the community to contact Community Liaison Officers (CLOs) John O'Halloran and Liam Cleary, whose mobile numbers and email address are on all correspondence along with the website details.

Engagement with the community started in October 2022 when the CLOs distributed an introductory newsletter with accompanying letter and company brochure to houses within 4km of the study area to inform residents about the proposed project. This gave the CLOs the opportunity to start conversations with those closest to the site prior to any detailed design work commencing.

View of the proposed development site



The team has placed a strong focus on open communication with the local community

A dedicated project website www.scartmountainwindfarm.ie also went live. This website contains all project information as well as a detailed Fact File, which has been updated as the project has progressed, and most recently provides access to the Virtual Tour.

In March 2023, the CLOs hand-delivered Newsletter 2 with an accompanying letter to those who live within 2km of the project study area. This gave them further opportunity to answer questions raised by local residents and stakeholders and to share information.

As a follow-up, the CLOs called back to those who they had not met, and when people were not at home, they put an 'Invite' letter to contact them in their post-box.

In June 2023, those who live within 2km of the study area received Newsletter 3 with an accompanying letter. This gave the CLOs another opportunity to share information and answer questions raised by local residents and stakeholders.

On 24th August 2023, the project team held an information webinar. This was widely advertised in the local area and in the press.

The webinar gave community members the opportunity to meet the team, hear more about the project and ask their questions.

Since the project launched to the local and wider community, our approach has been to focus on those living closest to the site (up to 2km). The CLOs have maintained a presence here to allow for queries to be answered and the project discussed.

The wider community was notified about the project via local newspaper coverage and anyone who has asked to be kept informed or to receive newsletters has been provided with this information.

Early in the engagement process, the CLOs also began keeping local interest groups from the wider community and local elected representatives up to date on the proposed Scart Mountain Wind Farm. This level of commitment continued throughout the engagement process and will continue as the project progresses.

All newsletters, letters and other updates, including information about the Community Benefit Fund are available on the project website.

Our Design Approach

Constraints-led design is a commonly used, best practice approach employed in wind farm design. Using this method, the design team identifies environmental sensitivities within the project study area with a view to pinpointing suitable areas in which wind turbines may be located. The resulting area is known as the 'developable area'.

The site study area will already have been chosen based on its viability in terms of wind resource, land size, planning policy and the availability of a connection to the national grid (Figure 1).

The design and layout of the proposed Scart Mountain Wind Farm follows the recommendations set out in the Wind Energy Development Guidelines (WEDGs 2006, Department of the Environment, Heritage and Local Government) and Best Practice Guidelines for the Irish Wind Energy Industry (Irish Wind Energy Association, 2008).

The 2006 WEDGs are the subject of a targeted review. The Draft Revised Wind Energy Development Guidelines, December 2019 (Draft WEDGs 2019) outline proposed changes to the management standards associated with onshore wind energy developments.

Please note, Scart Mountain Wind Farm has been designed to align with the requirements of the Draft WEDGs 2019.

Gathering information

The first step is gathering information through detailed desk-based assessments, field surveys and consultation. Key environmentally sensitive features (also known as sensitive receptors) are mapped, which include:

- Private dwellings
- Protected sites such as Special Areas of Conservation, Special Protection Areas or Natural Heritage Areas
- Hydrological features such as streams
- Areas prone to flooding
- Sensitive ecological habitats
- Known nesting sites of protected bird species
- Steep terrain or areas that may be potentially susceptible to landslides
- Designated sensitive views or scenic routes
- Places of archaeological or cultural heritage significance

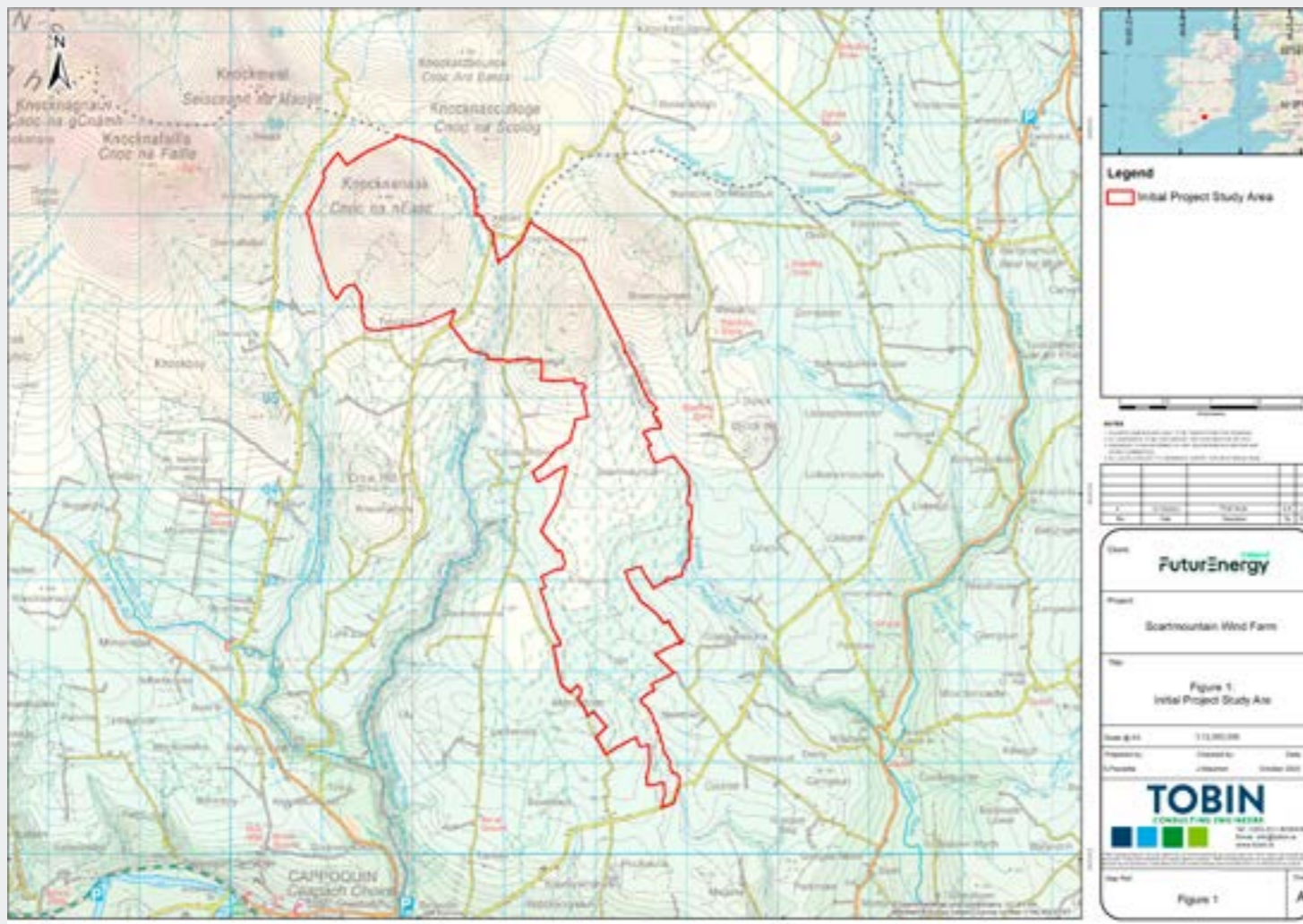
Applying setback buffers

The constraints mapping process involves placing buffers around constraints to identify the areas within which no development works will take place if possible.

The following constraints and buffers apply to Scart Mountain Wind Farm:

- A minimum 800 metre setback from residential dwellings (exceeding the 740 metre 4 x tip height separation distance required in the Draft WEDGs 2019)
- Rivers and streams plus 50 metre buffer
- Recorded archaeological sites and monuments plus 100 metre buffer
- Telecommunications buffers

Figure 1 Initial Project Study Area



The proposed Scart Mountain Wind Farm has been designed to align with the Wind Energy Development Guidelines (WEDGs) 2006 and the Draft WEDGs 2019



In the case of Scart Mountain Wind Farm, the setback buffer applied from dwellings is more than 800 metres. This exceeds the requirements of both the current WEDGs and the Draft WEDGs. The current WEDGs set out a minimum setback requirement of 500 metres. The Draft 2019 WEDGs recommend a minimum setback distance equal to four times the tip height or 500 metres, whichever is largest.

Figure 2 (below) shows how this property setback buffer affects the developable area. As the map shows with the areas highlighted

in pink, this design constraint has removed a significant portion of land from consideration.

Additionally, setback buffers are applied to existing roads, high voltage electrical lines, telecommunication links, public roads and trails. Figure 3 (below) shows the setback buffers applied to rivers and streams, telecommunication links and recorded archaeological sites at the proposed Scart Mountain Wind Farm site.

There are further constraints associated with landscape and visuals, including the zone of

theoretical visibility (ZTV) from viewpoints. This technique allows the designers to understand from where particular wind turbines (or parts of them) may be visible based on ground topography and indicates potential visual impact at these locations.

From this information, 3D models and photomontages are prepared to further inform the wind farm layout and to optimise turbine positioning to limit turbine visibility from key viewpoints.

Figure 2 Setback buffer from dwellings applied (pink areas)

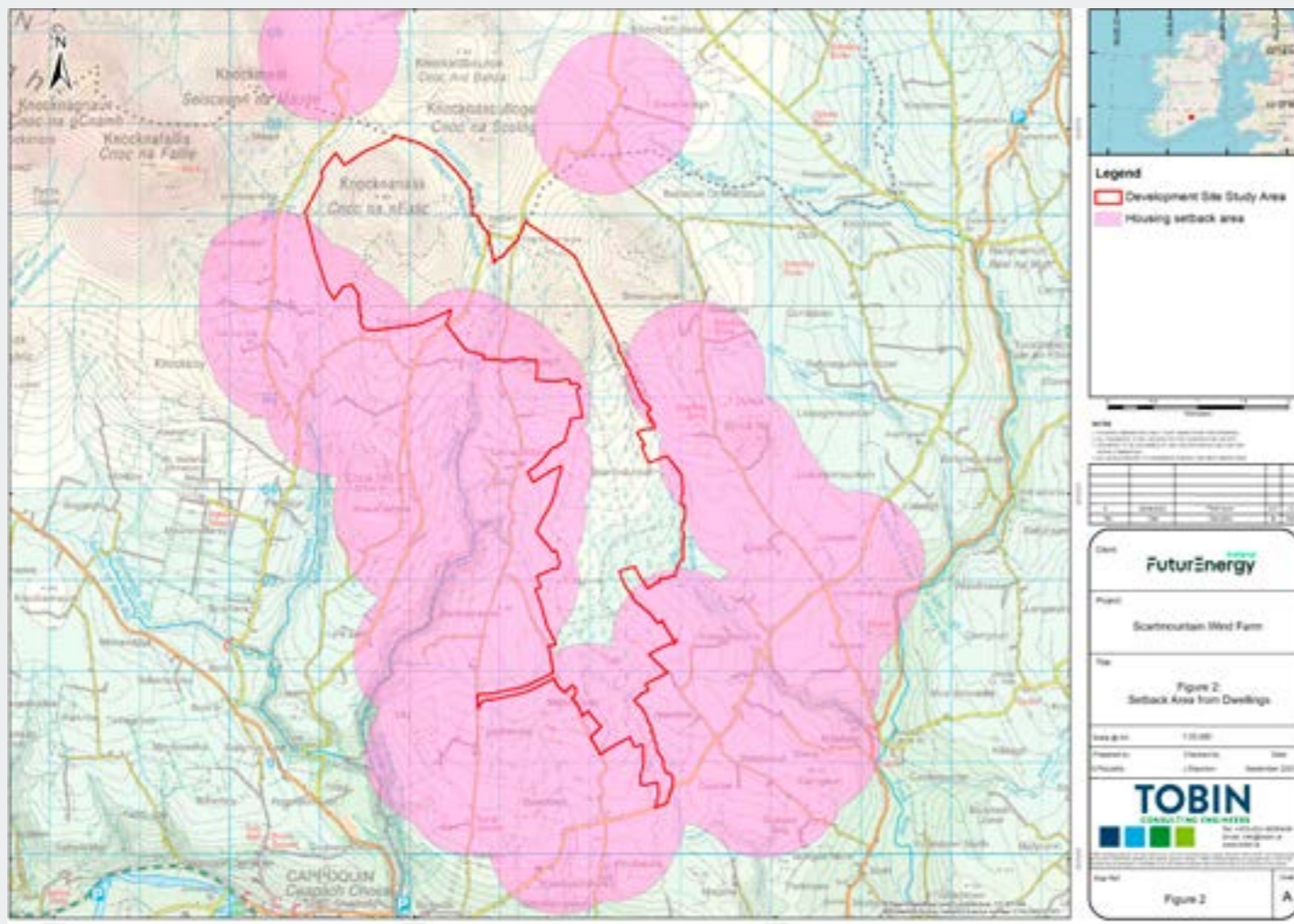
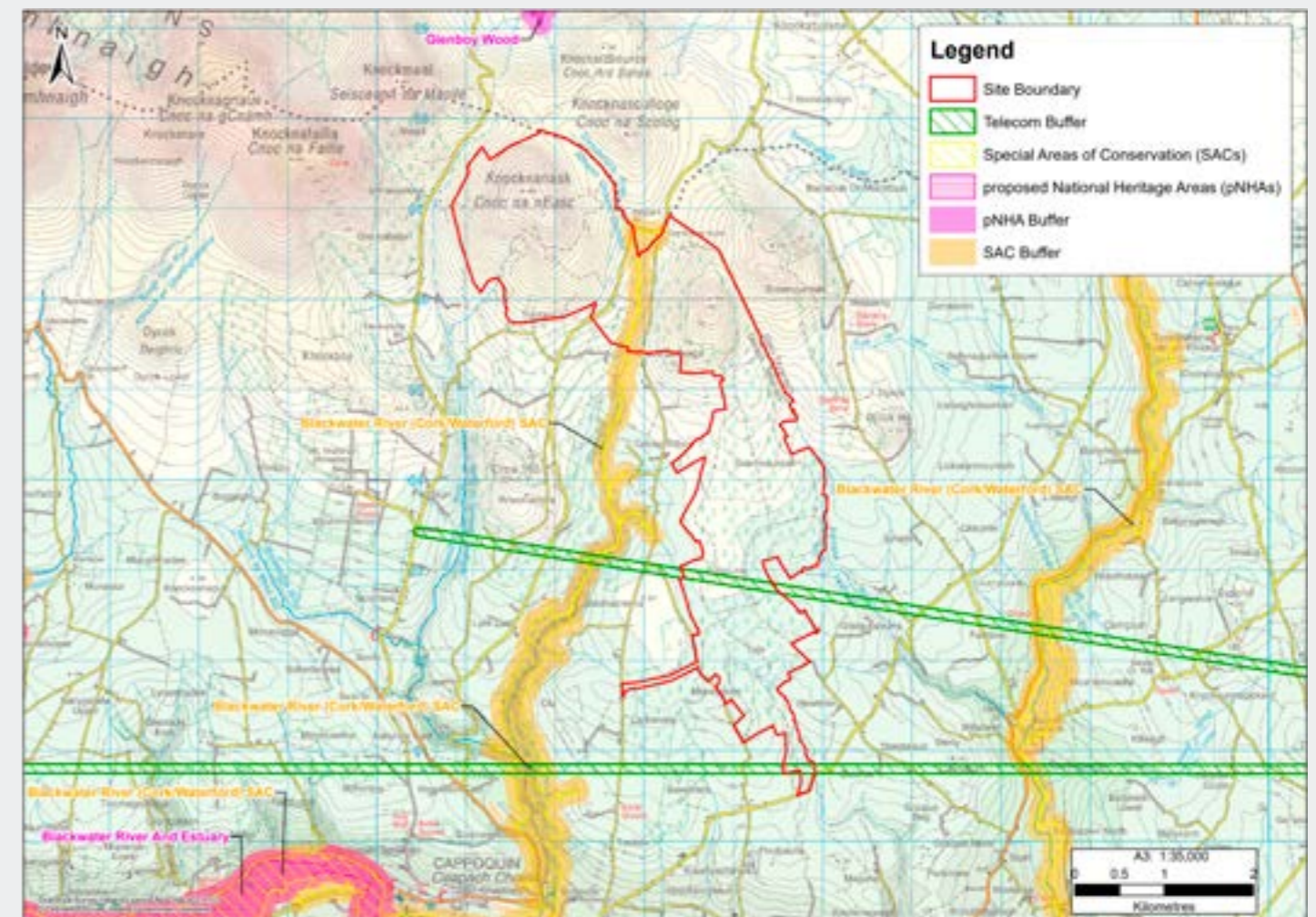


Figure 3 Setback buffers from identified constraints



Mapping the developable area

When all the constraints are layered on top of one another, the area available for wind energy development becomes apparent. As you will see, this is significantly smaller than the original study area.

Figure 4 (below) shows the area in which wind turbines can be sited. After placing wind turbines within the developable area, allowing for required spacing between them, the resulting layout forms the first design version of the wind farm (Figure 5). This design layout was provided to the team of environmental specialists who had carried out desk and field surveys, studies and consultation, and feedback received from

the team resulted in one of the turbine locations being removed for biodiversity reasons. The layout was then updated to reflect this change, and a second turbine layout was produced for consideration by the team (Figure 6).

A landscape and visual appraisal of this layout highlighted one turbine that was particularly prominent on the landscape when viewed from scenic roads. This turbine was then removed in the design of the final turbine layout (Figure 7).

The preliminary locations for the other elements of the wind farm design such as

onsite access tracks, crane hardstandings, the onsite substation and temporary compounds were designed and reviewed by the team of environmental specialists. These were updated following feedback from the team to produce the final site layout.

The final turbine layout overleaf, Figure 7, is the layout intended to be submitted for

planning permission, any late changes notwithstanding.

In our Virtual Exhibition, you will find a full suite of photomontage imagery that clearly show what the wind farm would look like, alongside existing and permitted turbines, from different viewpoints. This is available at www.scartmountainwindfarm.ie.

Figure 4 Development site study area (red) and potential developable areas (pink)

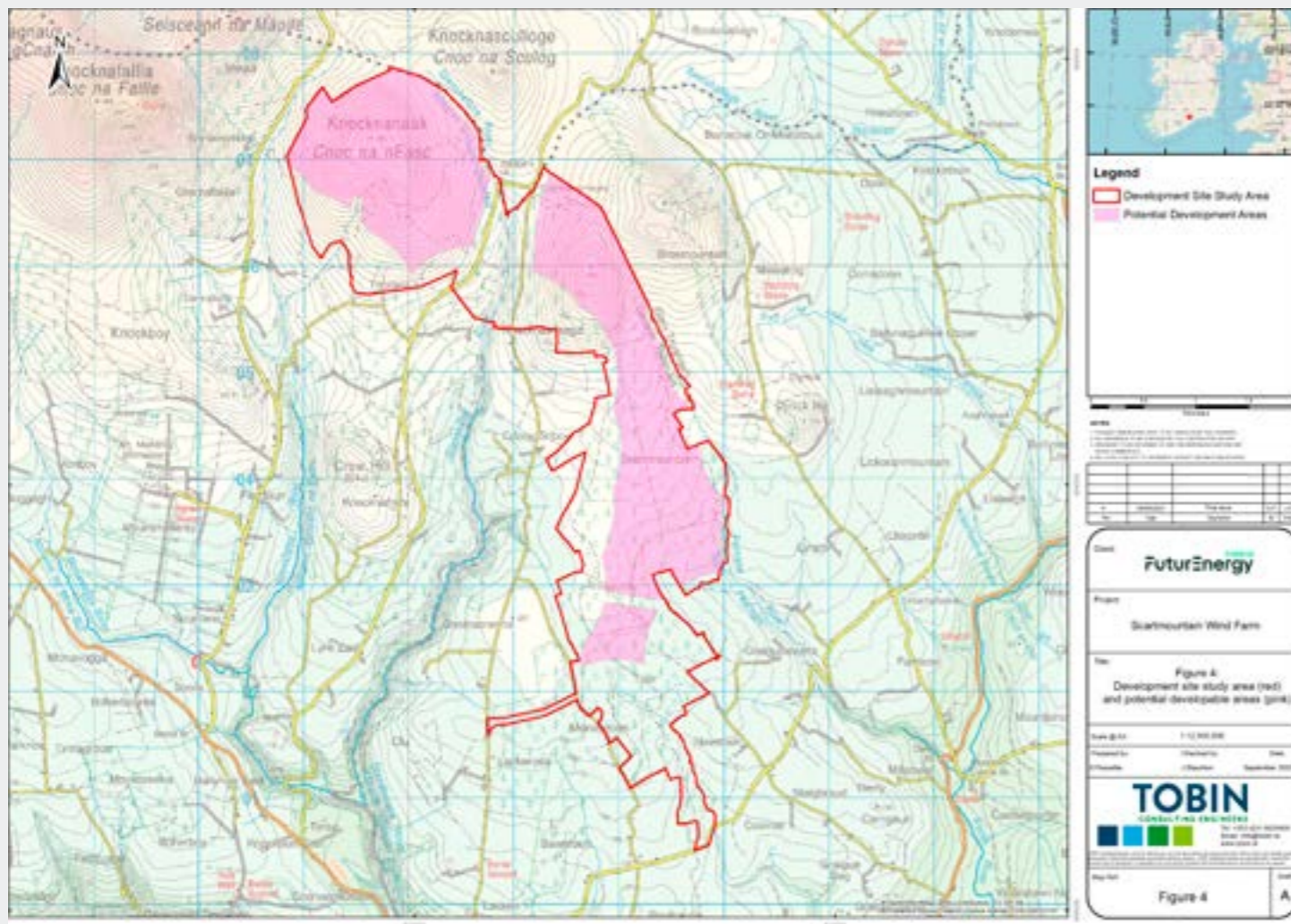
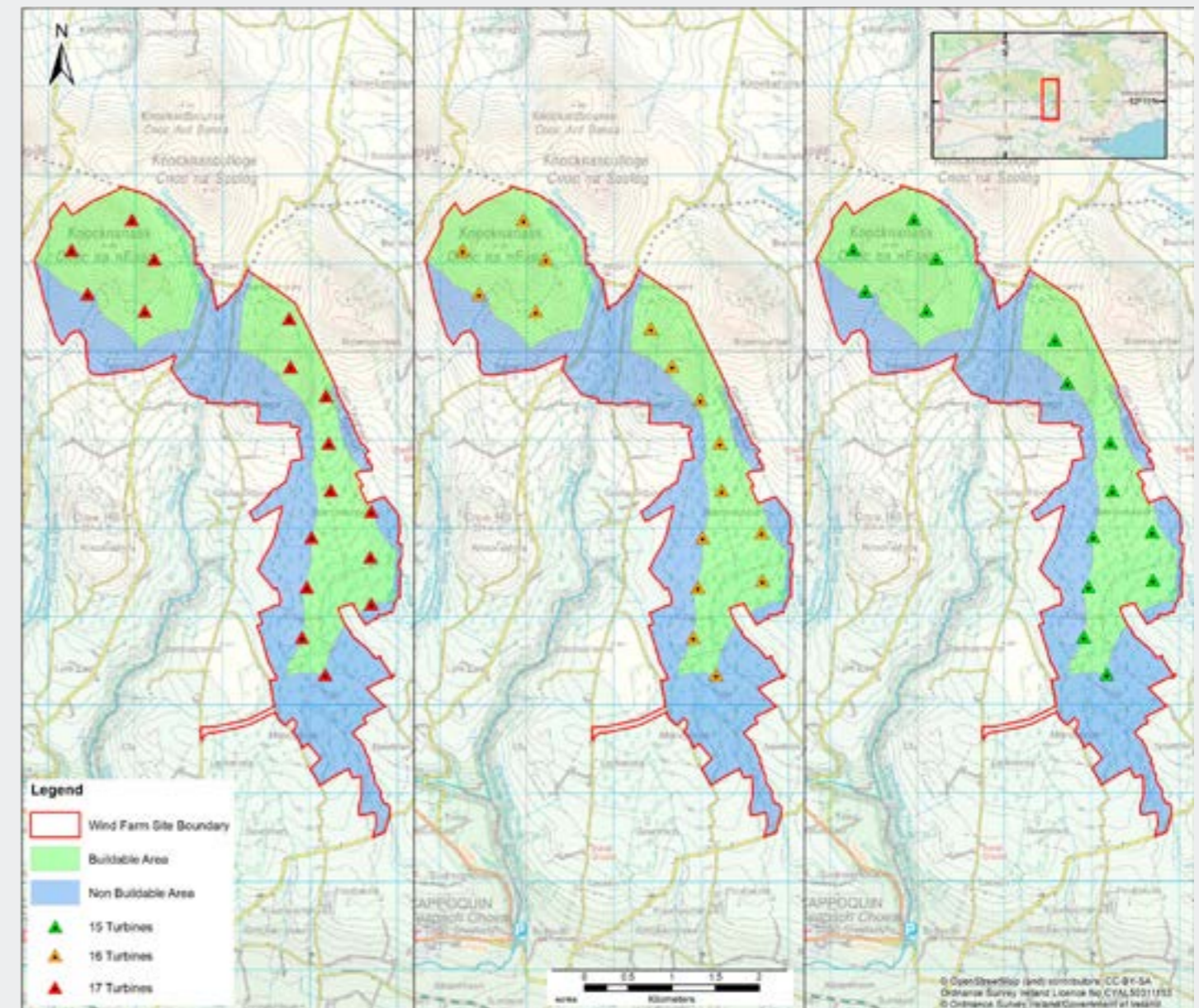
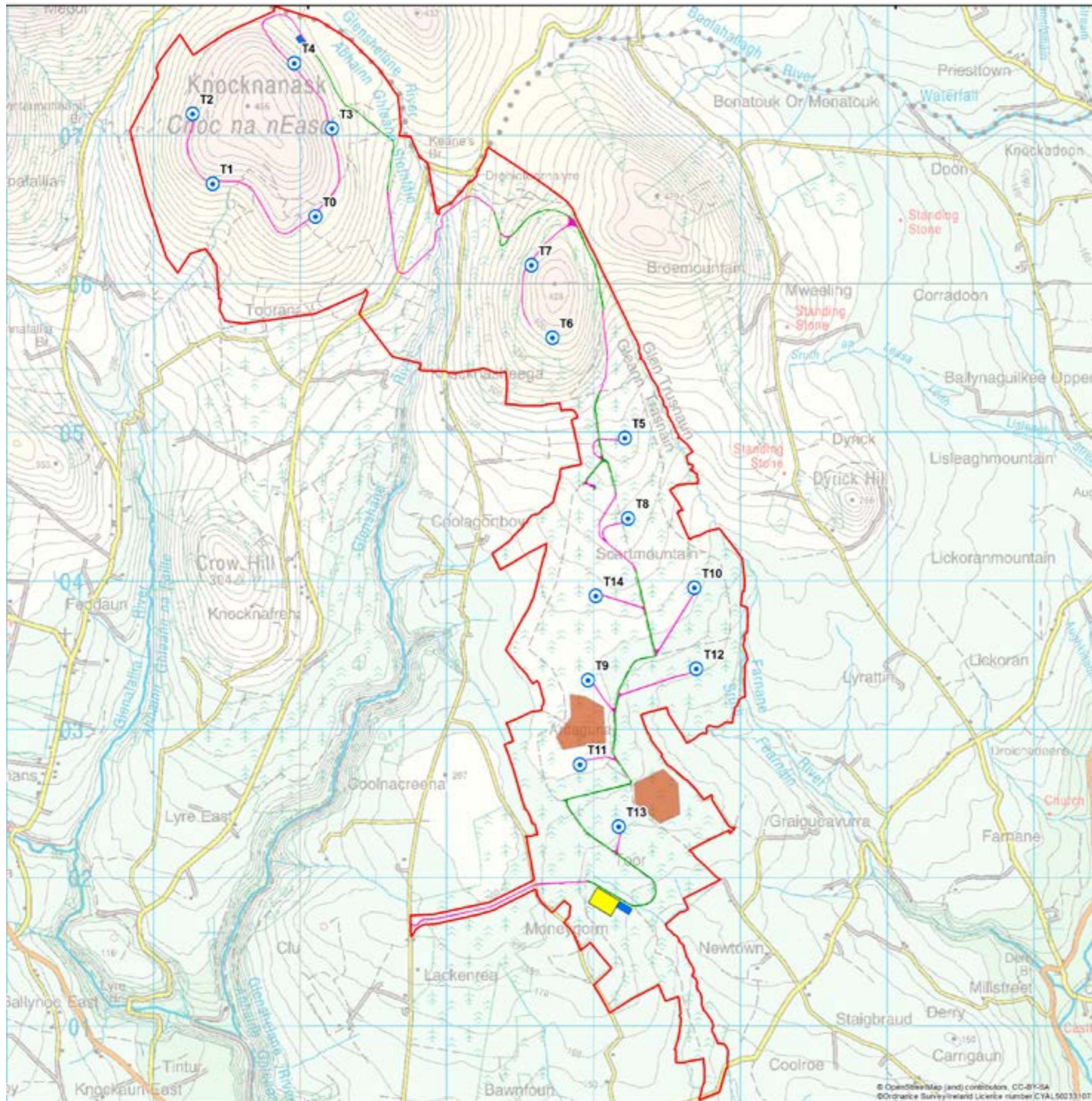


Figure 5 Developable area with turbine layout

Figure 6 Revised turbine design layout

Figure 7 Final turbine layout





Legend

- Development Site Study Area
- Proposed Turbine Layout
- Proposed Construction Compound
- Existing Site Roads
- Met Mast Location
- Proposed Site roads
- Proposed Substation Compound
- Proposed Borrow Pit Locations

Scale: 0 0.25 0.5 0.75 1 Kilometers

NOTES

1. FIGURES DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
2. ALL DIMENSIONS TO BE CHECKED BY THE CONTRACTOR ON SITE
3. DIMENSIONS TO BE MEASURED TO ANY DISCREPANCIES REQUIRED ANY WORK COMMENCES
4. ALL LEVELS RELATE TO ORDNANCE SURVEY DATUM AT MSL UNLESS STATED

REV	DATE	DESCRIPTION	BY	CHECK
A	28/09/2023	Final Issue	S.P.	J.S.

Client: **FuturaEnergy**

Project: **Scartmountain Wind Farm**

Title: **Figure 6: Final proposed turbine layout**

Scale @ A3: 1:25,000

Prepared by: S Pezzetta Checked by: J Staunton Date: September 2023

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Email: info@tobin.ie
www.tobin.ie

Map Ref: **Figure 6** Draft: **A**

Figure 7
Final Turbine Layout

The proposed project

The latest project description is provided below. This is subject to change before the planning application is submitted.

- Erection of 15 wind turbines
 - Overall blade tip height between 180 metres and 185 metres
 - Rotor diameter range from 149 metres to 163 metres
 - A hub height range from 103.5 metres to 110.5 metres
 Plus all associated foundations and hard-standing areas in respect of each turbine.
- Upgrading of existing site entrance with access onto the L5055 in Lackenrea. Creation of three local road crossing points for site access tracks (the L5054, L5055 and L1026 in Moneygorm, Knocknasheega and Tooranaraheen respectively).
- Improvements and temporary modifications to four locations adjacent to the public road to facilitate delivery of oversized loads and turbine delivery.
- Widening of sections of the L5055 within the road corridor (up to 4.5 metre running width) and creation of passing bays to facilitate delivery of oversized loads/ turbines and materials.
- Construction of two temporary construction compounds with associated temporary site offices, parking areas and security fencing.
- Installation of one permanent meteorological mast with a height of 100 metres.
- Two borrow pits.
- Construction of 11.5km of internal site access roads and upgrade of 7.2km of existing site roads, to include passing bays and all associated drainage.
- Construction of drainage and sediment control systems.
- Construction of one permanent 110kV electrical substation including:
 - One EirGrid control building containing worker welfare facilities and equipment store;
 - One Independent Power Producer control building containing high voltage HV switch room, site offices, kitchen facilities, storeroom and toilet amenities;
 - All electrical plant and infrastructure and grid ancillary services equipment;
 - Parking;
 - Lighting;
 - Security fencing;
 - Wastewater holding tank;
 - Rainwater harvesting equipment;
 - All associated infrastructure and services including site works and signage.
- All associated underground electrical and communications cabling connecting the wind turbines to the proposed wind farm substation.
- All works associated with the connection of the proposed wind farm to the national electricity grid, which will be via a tail-fed 110 kV underground cable connection (approximately 16 km cable length of which approximately 13 km will be in the public road corridor) to the existing 110 kV Dungarvan Substation.
- Five watercourse crossings on the grid connection route (of which two are classed as rivers and three are streams).
- All related site works and ancillary development including berms, landscaping and soil excavation.
- Forestry felling to facilitate construction and operation of the proposed project and any onsite forestry replanting.

View of the proposed turbines from the local road at Middlequarter, Newcastle, on the Waterford/Tipperary border



The grid connection

To ensure the power generated by the wind farm feeds into the national grid, a physical connection is required between the proposed Scart Mountain Wind Farm substation and the existing ESB Networks Dungarvan 110kV/220kV substation, approximately 16km from the wind farm development (Figure 8, below).

The connection method involves an underground cable that runs primarily

underneath the roadways, diverting from the road when there are technical merits to do so.

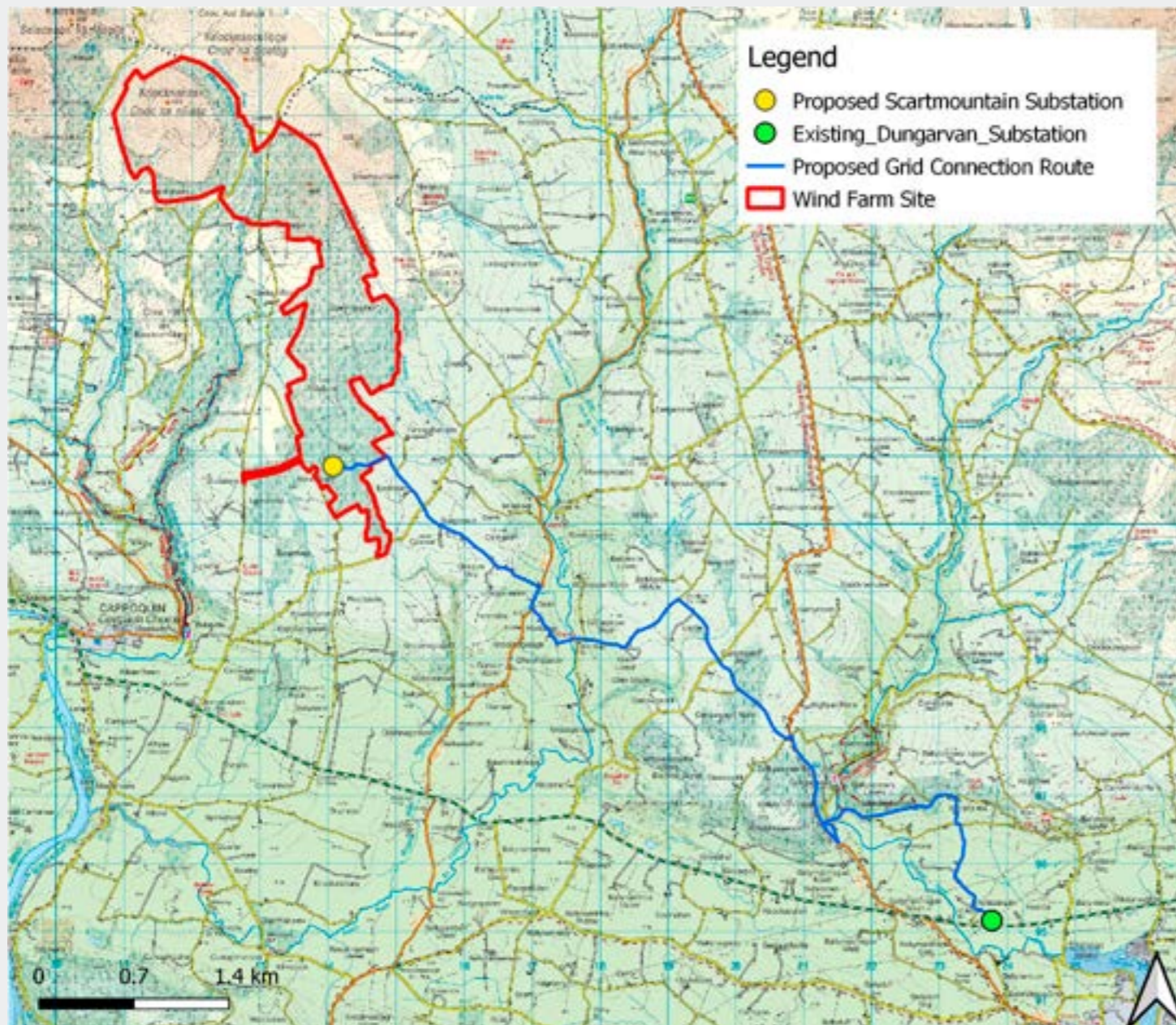
The proposed underground cable for the wind farm is being designed and constructed to meet ESB Networks standards. The cable will be installed in a similar manner to existing utilities in the area, such as other high voltage cabling and water mains.

The grid connection falls under a different part of the Planning and Development Act, s182A, therefore this will be a separate application to An Bord Pleanála to the wind farm, which will be submitted under s37A.

In the event of a successful planning outcome, the project team will work closely with Waterford County Council to ensure

compliance with planning conditions. A comprehensive traffic management plan will also be put in place and local access will be maintained at all times for residents and regular road users.

Figure 8 Grid Connection Map





Benefits to the Local Community

Scart Mountain Wind Farm has the potential to bring significant positive benefits to local communities. The project will support local employment, it will contribute annual rates to the local authority and it will provide a Community Benefit Fund in line with the Renewable Electricity Support Scheme (RESS).

RESS is a policy initiative to deliver on the Government's Climate Action Plan. An important feature of RESS is that all projects must establish a Community Benefit Fund to be used for the wider environmental, social and economic wellbeing of the local community.

Those living in closest proximity to the project should be priority beneficiaries and that is why some of the fund is designated for Near Neighbour payments. However, it is important that broader community benefits apply as well.



What will the Community Benefit Fund look like?

Practice Principles for Community Benefit Funds' under the Renewable Electricity Support Scheme (RESS).

Under RESS, communities will be at the heart of the decision-making process, which gives them the opportunity to develop a strategy to maximise the impact of their own Community Benefit Fund. One particular focus of the funds is to support local initiatives that align with the UN Sustainable Development Goals such as home and community hall retrofits, pollinator farms, cycle paths, educational scholarships and sports club activities.

The scheme mandates all RESS projects to establish a Community Benefit Fund worth €2 per MWh (megawatt hour) of generated electricity for any future wind farm. Therefore, the project owners are required to contribute €2 per MWh annually into a community fund for the RESS contract period i.e. the first 15 years of operation.

In addition, FuturEnergy Ireland commits to a further €1/MWh for the remaining lifetime of the wind farm. The total fund per annum will depend on the final power output of a successful project.

Scart Mountain Wind Farm, if constructed as proposed, has the potential to produce more than 270,000 MWh of clean electricity a year. This means that the project could contribute approximately €540,000 per annum to the Community Benefit Fund for the first 15 years of its operational life.

For the remaining lifetime of the wind farm, FuturEnergy Ireland commits to contributing an additional €1/MWh, which is estimated to be €270,000 per year. Therefore, over the expected lifetime of Scart Mountain wind farm, the Community Benefit Fund will be in the order of €12 million.

If the project seeks an alternative route to market other than RESS, FuturEnergy Ireland pledges to match these contributions.



What can the fund be used for?

Government guidelines for the annual distribution of this fund are as follows:

- A minimum of €1,000 shall be paid to each household located within a distance of a 1 kilometre radius from the nearest turbine.
- A minimum of 40% of the funds shall be paid to not-for-profit community enterprises whose primary focus or aim is the promotion of initiatives towards the delivery of the UN Sustainable Development Goals, in particular Goals 4, 7, 11 and 13, including education, energy efficiency, sustainable energy and climate action initiatives.
- A maximum of 10% on administration.

- The balance of the funds shall be spent on initiatives successful in the annual application process, as proposed by clubs and societies and similar not-for profit entities, and in respect of Onshore Wind RESS 1 Projects, on “near neighbour payments” for households located outside a distance of 1 kilometre, but within a distance of 2 kilometres from such RESS 1 Project.



One particular focus of the funds is to support local initiatives that align with the UN Sustainable Development Goals such as home and community hall retrofits, pollinator farms, cycle paths, educational scholarships and sports club activities.



How the fund works

Should Scart Mountain Wind Farm receive a positive planning outcome, it is envisaged that the project team and the local community will work together to develop an appropriate local structure that would design the Scart Mountain Wind Farm Benefit Fund. This group will make decisions on funding allocations and, with the assistance of an administrator, manage the fund, ensuring transparency and good governance.

Further details can be found at:
<https://www.gov.ie/en/publication/5f12f-community-projects-and-benefit-funds-ress/>

Environmental benefits

The proposed development will have an installed capacity of between 85.5 MW and 108 MW subject to final design, which means it will have the capacity to provide enough electricity to power between 45,600 and 65,600 Irish households annually.

Electricity generated by Scart Mountain Wind Farm would not produce any CO₂ emissions, but carbon emissions are caused by its construction, transport, installation and decommissioning. Studies calculate the carbon payback period of an onshore wind farm to be between six and 24 months. An exact figure for Scart Mountain will be provided in the Environmental Impact Assessment Report.



The proposed development would have the capacity to provide enough electricity to power between 85.5 MW and 108 MW subject to final design, which means it will have the capacity to provide enough electricity to power between 45,600 and 65,600 Irish households annually.



Employment opportunities

The development brings employment opportunities. At peak construction, up to 100 people will be directly employed. Two or three long-term, technical employees are also required onsite to run the wind farm, with numerous other jobs being supported in ancillary functions. Demand for a wide range of products and services will create indirect employment.



Council rate contributions

Under current guidelines, it is estimated that Waterford County Council will receive a contribution of between €896,000 to €1.056 million in annual rates from Scart Mountain Wind Farm. This will have a positive impact on local infrastructure and amenities such as roads, public lighting, libraries and fire services.

The Environmental Impact Assessment Report

The Environmental Impact Assessment Report (EIAR) that accompanies the planning applications will focus on the areas outlined here. TOBIN is compiling the EIAR with the input of other specialist consultants.

- Chapter 1 Introduction
- Chapter 2 Description of the Proposed Project
- Chapter 3 Consideration of Reasonable Alternatives
- Chapter 4 Policy, Planning and Development Context
- Chapter 5 Population and Human Health
- Chapter 6 Biodiversity, Flora and Fauna
- Chapter 7 Ornithology
- Chapter 8 Land, Soils and Geology
- Chapter 9 Hydrology and Hydrogeology
- Chapter 10 Shadow Flicker
- Chapter 11 Material Assets, Telecommunications and Aviation
- Chapter 12 Noise and Vibration
- Chapter 13 Landscape and Visual Amenity
- Chapter 14 Air Quality and Climate
- Chapter 15 Archaeology and Cultural Heritage
- Chapter 16 Traffic and Transportation
- Chapter 17 Interaction of the Foregoing
- Chapter 18 Schedule of Mitigation

Please find an introduction to some of the EIAR chapters that may be of interest. More information will be available in the full EIAR that accompanies the planning application.

Population and Human Health

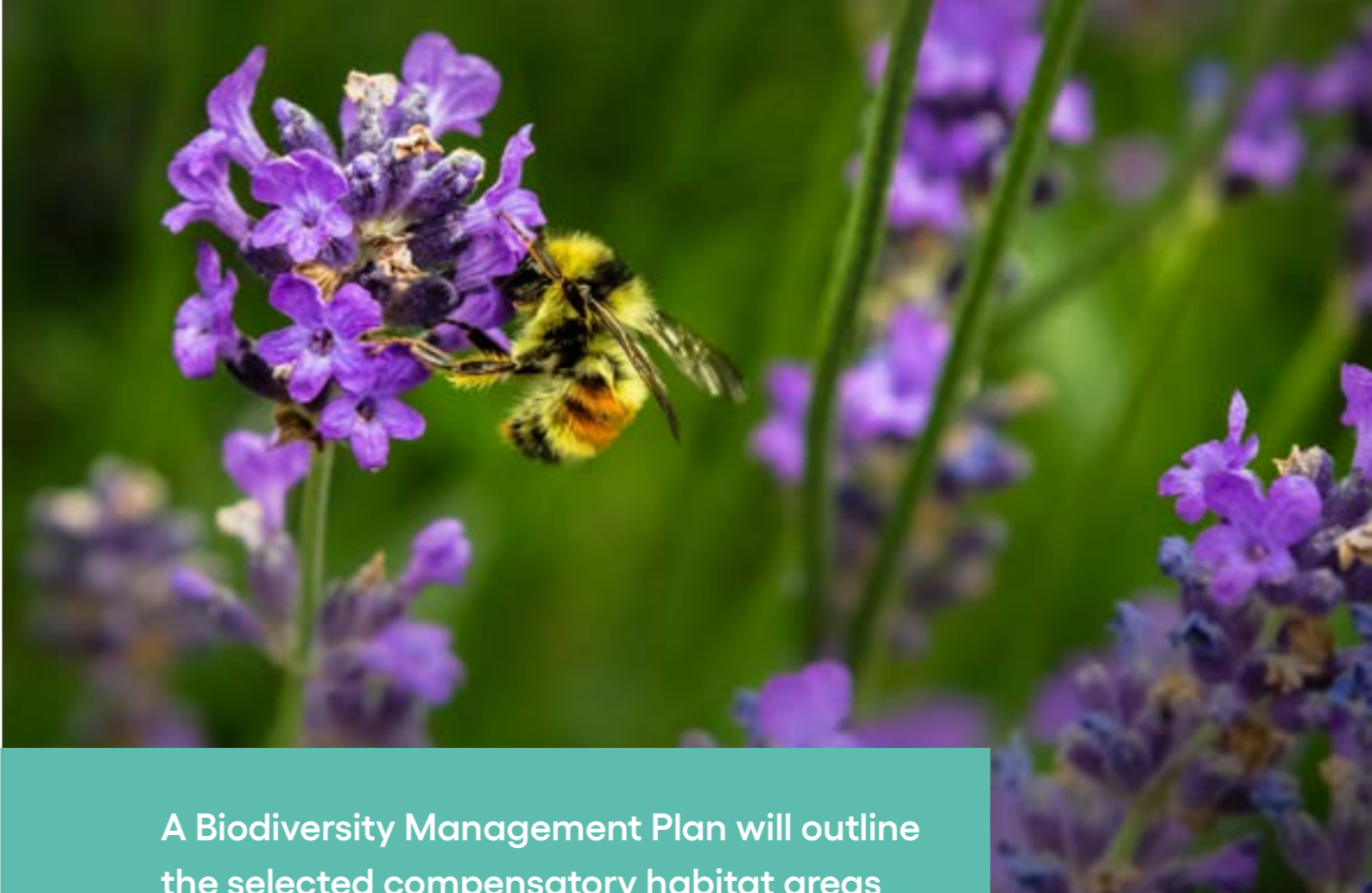
Population and Human Health examines the potential impacts of the project on the local and regional community. The assessment on population considers the current land use of the proposed site, the current activities occurring within and in the vicinity of the site, local population information, employment profiles, tourism, visitor attractions and community gain opportunities. The assessment includes a detailed literature review of studies and research carried out on the potential effects of wind farm developments on human health.

In relation to the proposed Scart Mountain Wind Farm, the following are the potential effects on the local human environment:

- Short-term boost in local economy (over a period of c. 24 months);
- Increase in employment, up to 100 persons are expected to be directly employed during peak construction phase and 2-3 long-term jobs are expected to be created;
- Traffic nuisance during construction;
- Dust emissions from construction;
- Noise emissions during construction;

Tourism and recreational impacts are anticipated to be short term, associated with an increase in construction traffic. No other direct or indirect effects on tourist or recreational activities are predicted.

Each of these issues has been fully assessed and is being documented as part of the EIAR. The potential effects listed above are expected to be minimal and short term.



A Biodiversity Management Plan will outline the selected compensatory habitat areas and their management

Biodiversity

Ecological studies were undertaken for the proposed Scart Mountain Wind Farm to collect and collate ecological data. An overview is outlined below.

The majority of the proposed development is located within conifer plantation with some turbines on degraded peatland habitats on Knocknask and Knocknasheega mountains. Knocknask peatland habitats have become degraded due to historical turf cutting, burning and pressures due to intensive grazing. Knocknasheega mountain habitats are fragments of what was previously a larger area of peatland habitats prior to afforestation.

The wind farm design was optimised to avoid as much as possible the open peatland habitats within the footprint of the development i.e. where the turbines and new access roads will be placed. Where the loss of open peatland

habitat cannot be avoided, areas within and outside the site have been selected to offset the effect of the development on the peatland habitats.

A Biodiversity Management Plan will be prepared which will outline the selected compensatory habitat areas and their management to enhance condition.

Ornithology

Ornithology (bird) surveys were carried out for the proposed Scart Mountain Wind Farm between 2018 and 2023. Species of note recorded using the wind farm site and wider study area include hen harrier, kestrel, peregrine, and golden plover.

The potential impacts of wind farms on birds relate to disturbance (construction phase), displacement (construction and operational phases) and collision with the turbines.



View of the proposed site

The effects of disturbance are usually temporary while the effects of displacement can be temporary or permanent. Permanent displacement of birds from the site is mitigated through the provision of compensatory habitat.

Compensatory habitat lands will be provided as part of the project to offset the effect of any displacement of significant species (foraging hen harrier). These lands will provide biodiversity benefits beyond the provision of foraging habitat for hen harrier.

The number of collisions per year that may occur due to the proposed project is predicted using Collision Risk Modelling. This is based on the patterns of flight activity recorded in the surveys and the wind turbine parameters. Collision Risk Modelling is carried out for species of raptor such as hen harrier, kestrel and peregrine and other birds of conservation concern such as golden plover.

Land, Soils and Geology

Site walkovers, mapping and surveying were carried out on site to determine peat depth and slope gradients. Bedrock and mineral subsoils were logged, and subsoil samples were analysed. The soil is mainly glacial till

with small pockets of very shallow peat. The bedrock across the site is generally shallow.

Landslide susceptibility and history was investigated. No landslide event has been recorded within the site boundary. A Peat/Soil Stability and Risk Assessment is being carried out as part of the EIAR.

Construction of the wind farm will require the removal of subsoils and rock to create solid foundations. Excavation of bedrock from the proposed on-site borrow pits and suitable off-site aggregate sources will provide appropriate construction material for access roads, turbine bases and general hardstanding foundations. Removal and reuse of subsoils and bedrock does not represent a significant impact on the geology of the site.

Hydrology and Hydrogeology

The site is located entirely within the Blackwater (Munster) Water Framework Directive (WFD) catchment.

The overall water quality in the area surrounding the proposed Scart Mountain Wind Farm has been of moderate to high status over the past 50 years, since regular monitoring was commenced by the Environmental Protection Agency in the early 1970s.

Due to the setback distances, there are no turbines within 700 metres of groundwater wells. There are no source protection zones within the proposed wind farm.

Drainage management will be employed to control drainage water within the site during construction. This should ensure that surface run-off from developed areas will continue to be of good quality and no flood risk to the downgradient (downstream) should occur.

Due to the localised nature of the proposed works, there is no potential for significant, negative cumulative effects on the water environment when assessed with other local developments.

Shadow Flicker

Wind turbines can cast long shadows when the sun is low in the sky. 'Shadow flicker' is an effect that occurs when the rotating blades of a wind turbine cast a moving shadow over a building. The effect is experienced indoors where a moving shadow passes over a window and results in rapid change or flicker in the incoming sunlight. For the vast majority of the time at any given property, shadow flicker should not cause any issues from any given turbine.

The shadow flicker analysis was undertaken using standard industry-modelling software. The study area identified sensitive receptors within 1.63 km of a proposed turbine location (i.e. 10 x 163m (rotor diameter) = 1.63km – used for worst-case assessment). A total of 64 sensitive receptors were identified.

Modern turbine technology allows for constant monitoring of the conditions that cause shadow flicker to occur and can therefore control the operation of the turbine to reduce or eliminate any impact. The 2019 Draft WEDGs propose that future projects should be conditioned to prohibit any shadow flicker from occurring.

FuturEnergy Ireland has committed to minimising any adverse effects from the proposed Scart Mountain Wind Farm on the local community and is committing to ensuring near zero shadow flicker at the receptors identified within 1.63km of the proposed wind turbine locations.

In practice, if the turbine blades are spinning quite rapidly, it can take one or two minutes for the wind turbine control system to safely shut it down, but it is certainly possible to reduce any shadow flicker to negligible levels.

Noise and Vibration

Environmental noise from wind energy development is assessed using the current 2006 WEDGs along with guidance in the Institute of Acoustics "Good Practice Guide".

A wind turbine generates two kinds of noise: aerodynamic noise created when the turbine blades pass through the air; and a mechanical noise caused by the generator in the nacelle (the large box at the top of the turbine behind the rotors). Every effort is made by FuturEnergy Ireland as the developer, and by turbine manufacturers, to minimise the amount of noise a wind farm generates, and always to operate within noise limits prescribed by the relevant authorities.

When planning a wind farm, extensive studies are carried out to identify the best location for each individual turbine to mitigate any potential disruption for local residents. The 2006 WEDGs specify that noise limits at neighbouring properties are set between 35 and 45 dB(A) depending on the time of day and the level of background noise. To put this in context, your kitchen fridge typically generates a sound level of around 40-43 decibels.

Background noise at noise-sensitive locations is measured simultaneously with wind speed. Background noise can include wind-generated noise in foliage and other sources such as farm activity or road traffic. The noise level meters are typically located in a garden. Several houses are chosen based on their proximity, direction from the wind farm and their setting, i.e., sheltered or exposed. These measured noise levels are used to form the limits of wind farm noise based on the 2006 WEDGs.

Separately, noise levels due to the wind farm are calculated using the turbine manufacturer's sound data for the turbine model and the assumptions in the relevant guidance. Calculated noise levels due to the wind farm are compared against the limit values – where any exceedances are noted.

While the existing WEDGs state that “in general, noise is unlikely to be a significant problem where the distance from the nearest turbine to any noise sensitive property is more than 500 metres”, FuturEnergy Ireland has committed to operating well above this benchmark. We have adopted a minimum setback standard of at least 800 metres from neighbouring properties to try to remove the risk of any potential noise nuisance.

The assessment of noise and vibration has found that no significant effects are expected as a result of the proposed development. Considering the distance between the majority of construction activities and the nearest noise sensitive locations, noise associated with the construction phase is not expected to exceed the proposed threshold values. Predicted noise levels associated with construction activities are expected to be within the range of 31 to 44 dBAeq,1hr, at 645 metres away from works. The worst-case cumulative construction level is expected to be 49 dBAeq,1hr.

At all noise sensitive locations in proximity to the proposed development, noise levels are expected to be below the significance threshold. During the operational phase of the proposed Scart Mountain Wind Farm, the predicted noise levels will be within best practice noise limits recommended in government guidelines.

Landscape and Visual Amenity

Detailed studies have been carried out on the landscape and visual impact of the proposed Scart Mountain Wind Farm. These studies inform the Landscape & Visual Impact Assessment (LVIA) within the EIAR.

The WEDGs (2006/2019 Draft revision) provide guidance on wind farm siting and design criteria for different landscape types. The setting of the proposed development is most consistent with the ‘Transitional Marginal Landscape’ type from the WEDGs. However, the wider context does encompass characteristics from a mix of the landscape types including ‘Mountain Moorland’ and ‘Hilly and Flat Farmland’.

A central component of the LVIA aspect of the proposed project is mitigation by design. Following the iterative design process and further localised design refinements, a final layout comprising 15 turbines with a maximum tip height of 185 metres was generated.

It was also recommended that the proposed turbines be limited to a maximum height of 185 metres to prevent any undue cumulative issues in terms of scale conflict with the proposed neighbouring Dyrick Hill Wind Farm.

In terms of residual visual impact, the proposed development will generate some localised borderline significant visual impacts. However, these are not considered to reach



The proposed wind farm is of a notable scale but appropriately sited in a broad-scale transitional foothill landscape and will not give rise to any significant residual landscape effects

the significant threshold. Whilst the proposed development will present with a dominant visual presence from some of the nearest receptors, the design of the proposed array directly responds to the guidance for ‘transitional marginal’ landscape types in the Draft WEDGs 2019, which aids the development in assimilating into this transitional foothill landscape context.

Based on our assessments, it is considered that the proposed Scart Mountain Wind Farm is of a notable scale but appropriately sited in a broad-scale transitional foothill landscape context and will not give rise to any significant residual landscape effects or visual effects. With regard to cumulative impact, in the existing baseline scenario, the proposed development is not considered to generate significant cumulative effects.

Archaeology and Cultural Heritage

The Archaeology and Cultural heritage study assesses the potential effects of the proposed Scart Mountain Wind Farm on archaeological, architectural and cultural heritage. This study informed the project's design and construction, in order to avoid or minimise any direct or indirect impacts including those on the setting of cultural heritage.

The proposed site layout will not result in any direct impacts on known monuments. There are a number of monuments located near the grid route such as Modeligo Church and graveyard. The EIAR will provide details on all monuments in the vicinity of the proposed project, as well as an impact assessment for the proposed project on Archaeology and Cultural Heritage.

The Planning Process

The planning applications for the wind farm and the grid connection will be submitted directly to An Bord Pleanála by the project company, Futureenergy Scart Mountain DAC. This is the regulatory process when a project is of sufficient scale to be deemed Strategic Infrastructure Development (SID) i.e., with a capacity greater than 50 MW. The two applications are under different sections of the Planning and Development Act, which means that they will be submitted separately.

During the project design and environmental assessment, consultation was carried out with An Bord Pleanála and the local planning authority, Waterford County Council, to discuss the project. The planning applications will be supported by an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS).

When the EIAR is complete, FuturEnergy Ireland will be ready to submit both planning applications to An Bord Pleanála. It is anticipated that these will be submitted in late 2023 / early 2024.

The intention to submit the applications will be advertised in local newspapers and notices will be erected at the site.

When all documentation has been received and validated by An Bord Pleanála, the full wind farm documentation will be uploaded and available to view at www.scartmountainplanning.ie. The full grid connection documentation will be available at www.scartmountaingridplanning.ie.

The planning documents will also be available on An Bord Pleanála's website www.pleanala.ie. The EIAR will also be available for viewing at the offices of An Bord Pleanála and Waterford County Council.

How can you engage with the planning process?

There is a useful Frequently Asked Questions section on An Bord Pleanála's website at <https://www.pleanala.ie/en-ie/strategic-infrastructure-development> that provides guidance on public participation. Any person or body may make submissions on the project to the An Bord Pleanála while the documents are available for viewing after the application has been submitted.

View of the proposed turbines from the local road at Newtown, northwest of Redgate crossroads



Next Steps

- **Share your feedback**

We encourage you to contact our Community Liaison Officers with any queries and questions.

- **Information hub**

Visit us at Cappoquin Community Hall on Friday November 24 between 3pm and 8pm to get more information about the project and to book an appointment for the community clinic.

- **Community engagement clinics**

Meet the project team in person at the community engagement clinics. These will take place in The Park Hotel Dungarvan on Tuesday November 28, 12pm-8pm and Wednesday November 29, 10am-4pm. Strictly by appointment only – to book a time slot, visit the information hub or contact our CLOs.

- **The planning application**

When the EIA is complete, FuturEnergy Ireland will be ready to submit the planning applications to An Bord Pleanála for the proposed Scart Mountain Wind Farm and grid connection. It is anticipated that these will be submitted late 2023 / early 2024.



Community Clinics will take place on **Tuesday November 28, 12pm-8pm**, and **Wednesday November 29, 10am-4pm**, in the Park Hotel Dungarvan. Book your appointment now with our CLOs.

Contact Us

We encourage and welcome your input and comments. Please get in touch either by phone, e-mail or post:

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