



Ballyfasy

Wind Farm

Project Brochure

Autumn 2025

A **FuturEnergy Ireland** and **ART Generation** Joint Venture

Manogate





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Introduction

Manogate Ltd is exploring the potential for a wind farm development in Co. Kilkenny. The proposed Ballyfasy Wind Farm is located 4km east of the M9 at Mullinavat.

About the Developers

Manogate Ltd is a joint venture between ART Generation and FuturEnergy Ireland.

ART Generation is an Irish renewable energy development company founded in 2002. The company has developed a substantial portfolio of more than 20 onshore wind farms and operates a number of wind farms. It has a large portfolio of Tier 1 onshore and offshore wind farm projects at various stages of development.

FuturEnergy Ireland is a leading Irish renewable energy developer established in 2021 as a standalone joint venture between Coillte and ESB. The company was formed to maximise the potential of Ireland's unique wind and land resources and to accelerate our transformation to a low carbon energy economy.

FuturEnergy Ireland is targeting the development of 1GW of renewable energy capacity, along with supportive energy storage facilities, by 2030.

The Project Team

The team directly involved in the proposed Ballyfasy Wind Farm includes Sandra Kelly, Project Manager from FuturEnergy Ireland, Community Engagement Manager Niall Barrett and two Community Liaison Officers (CLOs), Tom Whelan and Tom Boland, as well as several specialists in the areas of ecology, grid, wind resource, planning and more.

TOBIN has been appointed to carry out studies, design and preparation of the planning application and Environmental Impact Assessment Report (EIAR). The consultancy firm has an experienced team of planners, environmental scientists and other in-house specialists who work across all sectors of the energy and environment market.

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.

This brochure has been prepared to:

- Describe the constraints-led design process, which explains how the wind farm layout of this project has evolved.
- Present the final turbine layout that will be submitted with the planning application.
- Outline the many ways in which this project could benefit the local area.
- Explain the planning system and how to engage with the process.
- Provide details of the next steps for the project. This information is supplemented by an online Virtual Tour, which includes a set of photomontages of the proposed project from different viewpoints. This is available to view at: ballyfasywindfarm.ie.

View of the proposed Ballyfasy turbines from the L3424 at Farnoge West



All information on the Ballyfasy Wind Farm project to date, including a downloadable copy of this brochure, is available at ballyfasywindfarm.ie

The Context

The importance of energy security

In 2024, Ireland imported 80% of its energy (mainly gas) at a cost of €1 million per hour, way above the EU average of 58%. Since the Russian invasion of Ukraine in February 2022, gas prices in Europe have been extremely volatile, which leaves Ireland vulnerable to international price increases. This reliance on expensive imported energy is having an unprecedented inflationary effect across our economy.

The good news is that in 2024, Irish wind energy saved us €748 million on gas, which would have been predominantly imported. EU and national energy policies are seeking to further increase this by rapidly ramping up renewable generation capacity.

ART Generation and FuturEnergy Ireland are supporting the Government and the people of Ireland by developing low-cost renewable energy projects to reduce our dependence on imported fossil fuels and create a dependable, affordable, Irish-based energy source that supports the green economy and lowers energy bills.

Climate change: the scale and the urgency

Our planet is warming at a dangerous rate. The World Meteorological Organisation has confirmed that 2024 was the hottest year ever recorded globally, with temperatures surpassing 1.5 °C above pre-industrial levels. Greenhouse gases, ocean temperature, sea levels and glacier loss reached all-time highs. The report revealed that droughts, wildfires, floods and other extreme weather events caused food crises, economic upheaval, and displaced more than 800,000 people.

Earlier this year, we saw close to home the devastating impacts of extreme weather events when Storm Eowyn brought widespread chaos and disruption across the country.

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%.

The critical role of renewable energy

Urgent action is needed. A key pillar of this will be an increase in renewable energy to replace the oil, gas 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.

Ballyfasy Wind Farm is being proposed, in part, as a response to these challenges.



Why onshore wind?

As Ireland's largest and cheapest renewable electricity resource, wind energy accounted for 32% of all electricity generated in Ireland in 2024. In total, wind energy produced 13,258 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 power plants that burn fossil fuels, wind turbines do not produce atmospheric emissions that cause greenhouse gases. Wind 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, many other land uses can co-exist such as commercial forestry, farming, recreation and biodiversity management.

In 2024, Ireland's onshore wind energy capacity reached just over 5 GW.

The Climate Action Plan (2024) aims to increase onshore wind energy capacity to 9 GW by 2030. 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 Ballyfasy Wind Farm is located approximately 4km east of the M9 at Mullinavat in south Co. Kilkenny.

The land parcel extends to around 348 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:

- The site is in an accessible location for connection to the National Electricity Grid.
- There are good annual average wind speeds in the area.
- Setback distances from houses can be achieved to align with the latest government guidance of four times the tip height from the nearest turbine.
- There is a network of existing access roads across the site that can be upgraded and utilised for the project.
- The majority of the existing land use on site can co-exist with an operational wind farm.
- The forestry on site is commercial, which is not a rare or valuable habitat type.
- The proposed wind farm site is not within a Special Protection Area (SPA), Special Area of Conservation (SAC) or National Heritage Area (NHA).

The Manogate approach

Proactive engagement

We take a proactive approach to engagement, with dedicated Community Liaison Officers (CLOs) assigned to each project, which makes us accessible and easy to contact.

User-friendly, relevant and up-to-date information.

We ensure that the local community is kept updated, informed and has access to project information, as soon as it is available, in a user-friendly format.

Constructive conversation

Open, honest engagement is key to our approach. We listen to feedback, seek to understand any concerns raised and address these to the extent possible during the pre-planning process. This engagement continues throughout the lifetime of the wind farm.

Building relationships

Manogate is committed to strengthening partnerships with local communities now and into the future.



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

Our commitment to you

From the outset, the Ballyfasy project team has placed a strong focus on open communication. Throughout our engagement, we have actively encouraged the community to contact Community Liaison Officers, Tom Whelan and Tom Boland, whose mobile numbers and email address are on all correspondence along with the website details.

Engagement with the community started in December 2024 when the team hand-delivered an introductory newsletter to houses within 2km of the proposed study area. Our approach has been to focus on those living closest to the site (up to 2km) and the CLOs have maintained a presence here to allow for questions and concerns to be discussed.

A dedicated project website, www.ballyfasywindfarm.ie, went live when the project launched. This website contains all project information and updates, a detailed Fact File and access to the Virtual Tour.

Throughout the engagement process, the CLOs have kept local interest groups from the wider community and local elected representatives up to date on the proposed Ballyfasy Wind Farm. This level of commitment will continue as the project progresses.

View from the L3423 north of Mullinavat GAA Club of the proposed Ballyfasy Wind Farm



A constraints-led 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 result is known as the ‘developable area’.

The Ballyfasy site study area was chosen based on its viability in terms of wind resource, distance to housing, planning policy, environmental and ecological sensitivities, and the availability of grid connection.

Figure 1 shows the initial study area, which was informed using these parameters.

The design and layout of the proposed Ballyfasy Wind Farm follows the recommendations set out in the Wind Energy Development Guidelines (WEGs 2006, Department of the Environment, Heritage and Local Government) and the Draft Revised Wind Energy Development Guidelines 2019 (Draft WEGs 2019).

The WEGs 2006 are the subject of a targeted review by the Department. The Draft WEGs 2019 outline proposed changes to the management standards associated with onshore wind energy developments.

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:

- 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.
- Private dwellings.
- Protected sites such as Special Areas of Conservation, Special Protection Areas or Natural Heritage Areas.
- Hydrological features such as rivers and streams.
- Areas prone to flooding.
- Sensitive ecological habitats.

Figure 1 Initial Project Study Area.

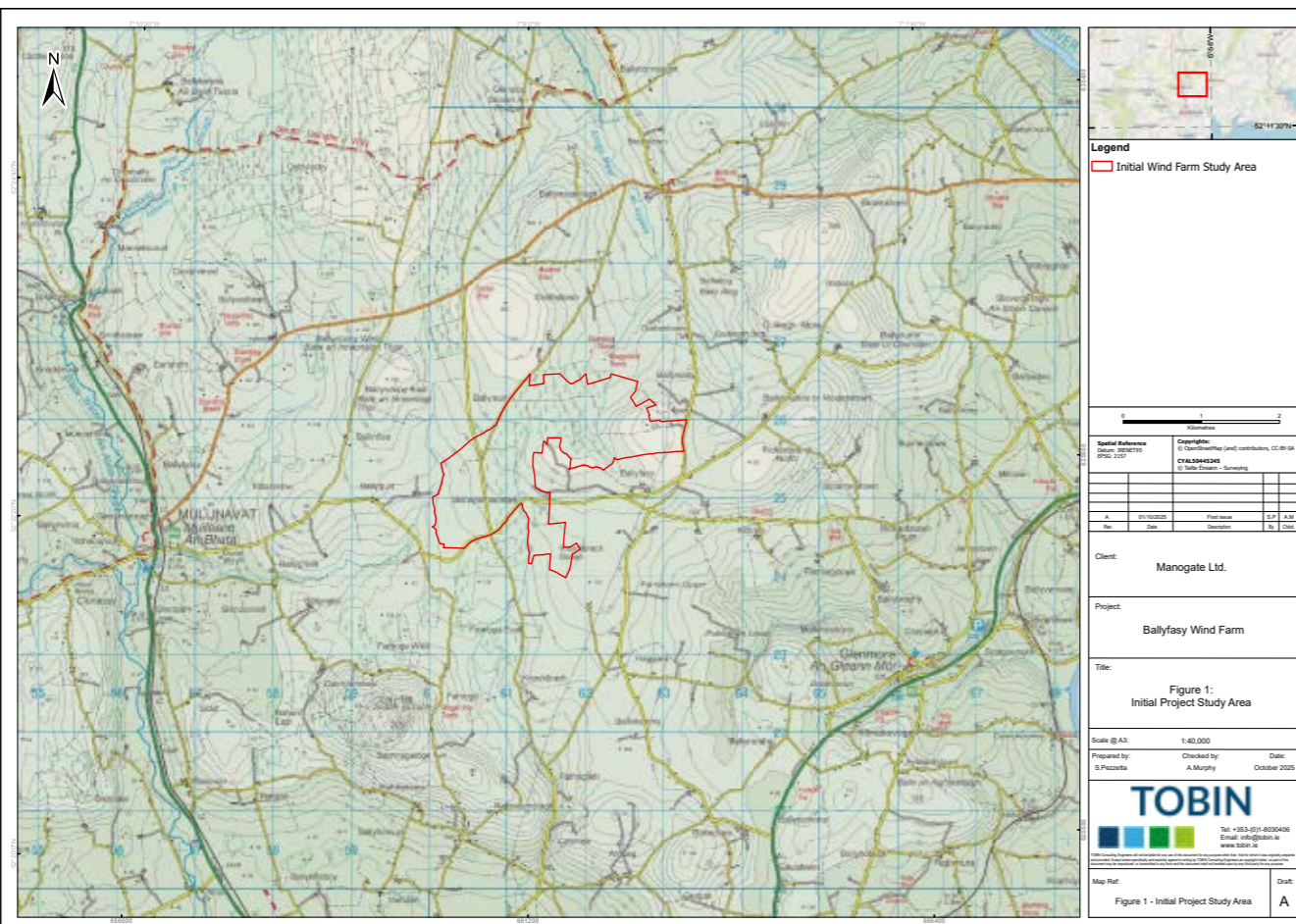
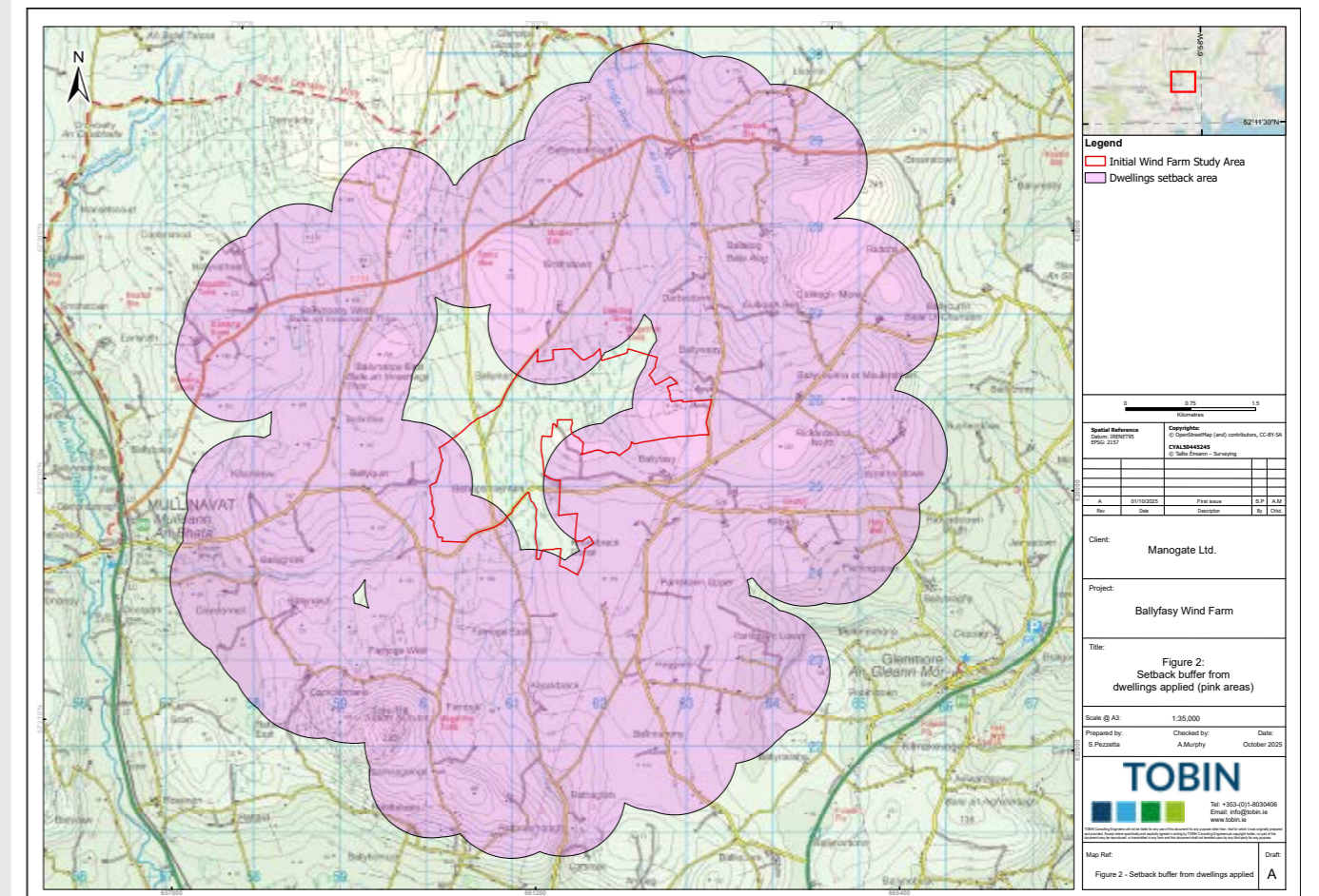


Figure 2 Setback buffer from dwellings applied (pink areas)



Applying setback buffers

The constraints mapping process involves identifying and placing buffers around constraints to identify the areas within which no development works will take place where practicable. The following constraints and buffers apply to Ballyfasy Wind Farm:

- A minimum setback of 720 metres from residential dwellings (adheres to the 4 x tip height separation distance required in the Draft WEGs 2019).
- Rivers and streams, minimum 50 metre buffer.
- Turbine buffer from adjacent wind farm turbines.

There are no designated sites within or immediately adjacent to the Ballyfasy Wind Farm study area. There are also no protected archaeological sites or monuments on site or immediately adjacent, therefore no constraint buffers for these were required to identify developable lands.

In the case of Ballyfasy Wind Farm, the setback buffer applied from dwellings is 720 metres. This meets the requirements of both the current WEGs and the draft WEGs. **Figure 2** (previous page) shows how the property setback buffer affects the developable area.

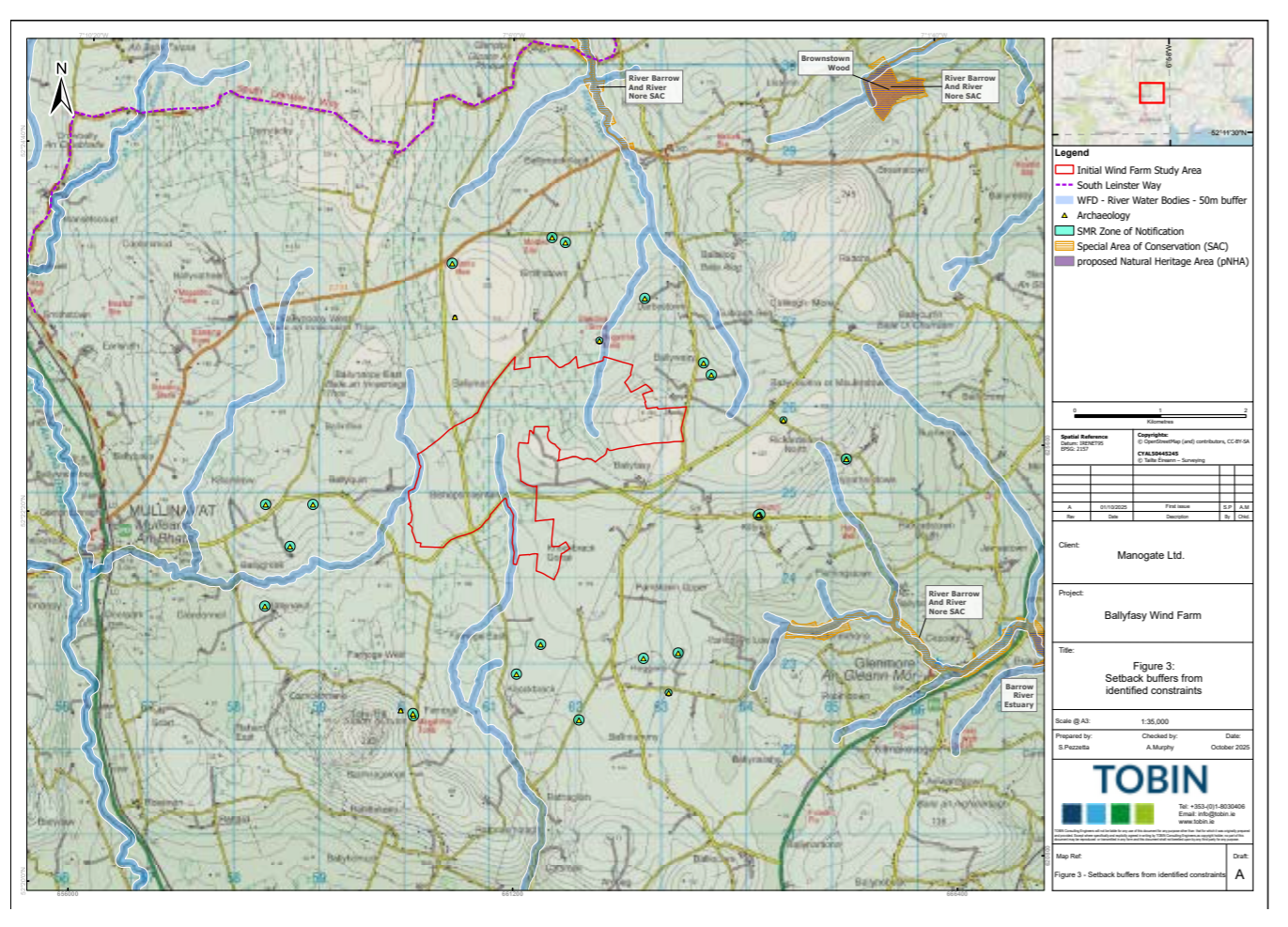
As the map shows with the areas highlighted in pink, this design constraint has removed a significant portion of land from consideration.

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 3 (below left) shows the setback buffers when applied to rivers and streams, and residential properties near the proposed Ballyfasy Wind Farm site.

There are further constraints associated with landscape and visuals, including the reverse Zone of Theoretical Visibility (ZTV) from viewpoints. This technique allows the team to see where particular wind turbines (or parts of them) may be visible based on ground topography and indicates potential visual impact at these locations.

Figure 3 Setback buffers from identified constraints



Mapping the developable area

When all the constraints are layered on top of one another, the true area available for wind energy development becomes apparent. This is significantly smaller than the original study area.

Following the application of all known constraints, the developable area is mapped. **Figure 4** (below) shows the area in which wind turbines can now be sited.

After placing wind turbines within the developable area, allowing for required spacing between them and from existing turbines adjacent to the site, the resulting layout forms the first design version of the wind farm, **Figure 5** (below right).

Other elements of the wind farm design can now commence such as onsite access tracks, crane hard standings, the onsite substation and temporary compounds.

Further environmental studies, field surveys and consultation can add new constraints, which may change the developable area as the project progresses. This approach is also applied to the location of other wind farm infrastructure.

In our Virtual Exhibition, a full suite of photomontage imagery shows what the wind farm would look like, alongside existing turbines, from different viewpoints. This is available at www.ballyfasywindfarm.ie.

The final turbine layout overleaf, **Figure 6**, represents the layout that will be submitted for planning permission, any late changes notwithstanding.

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

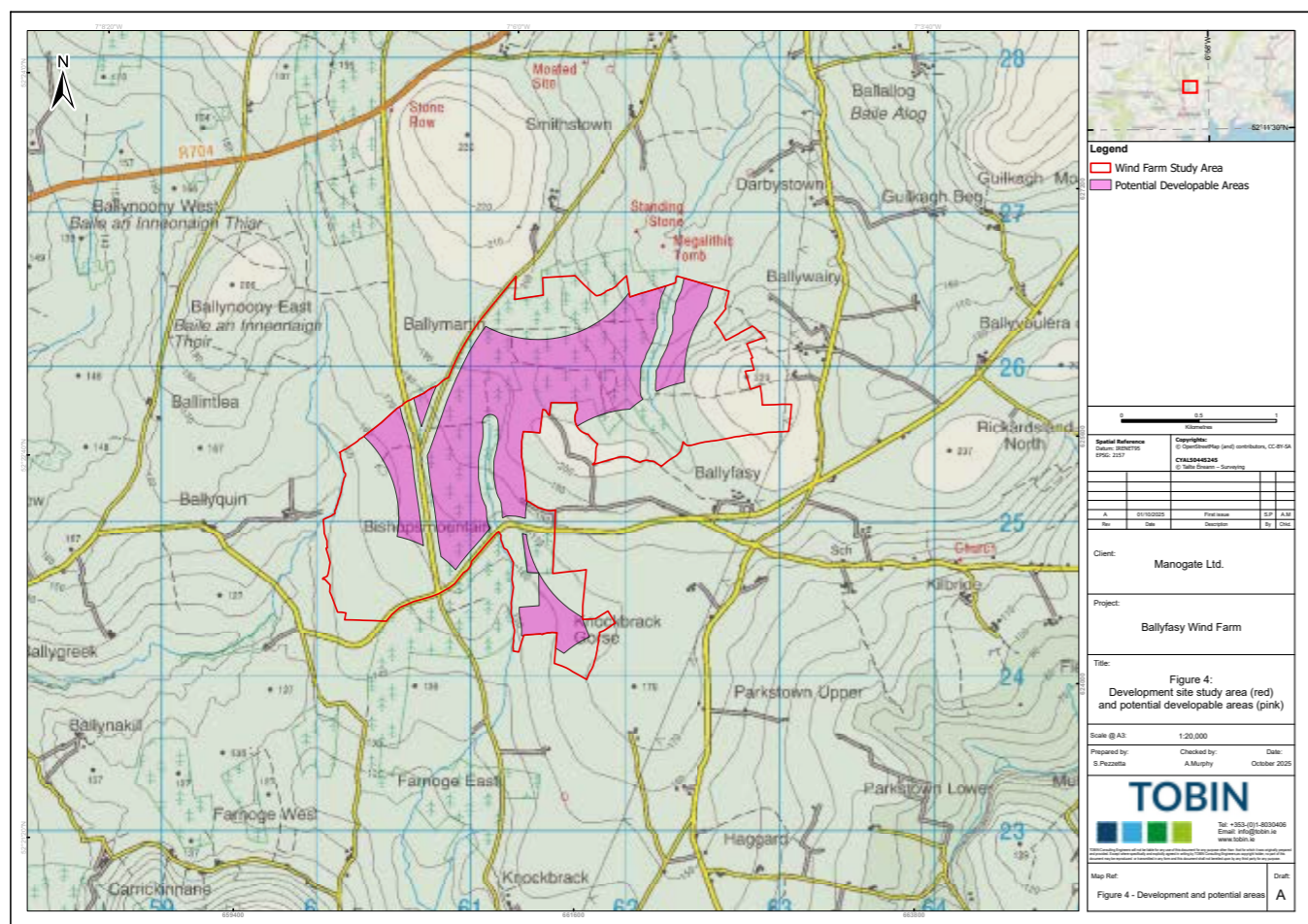
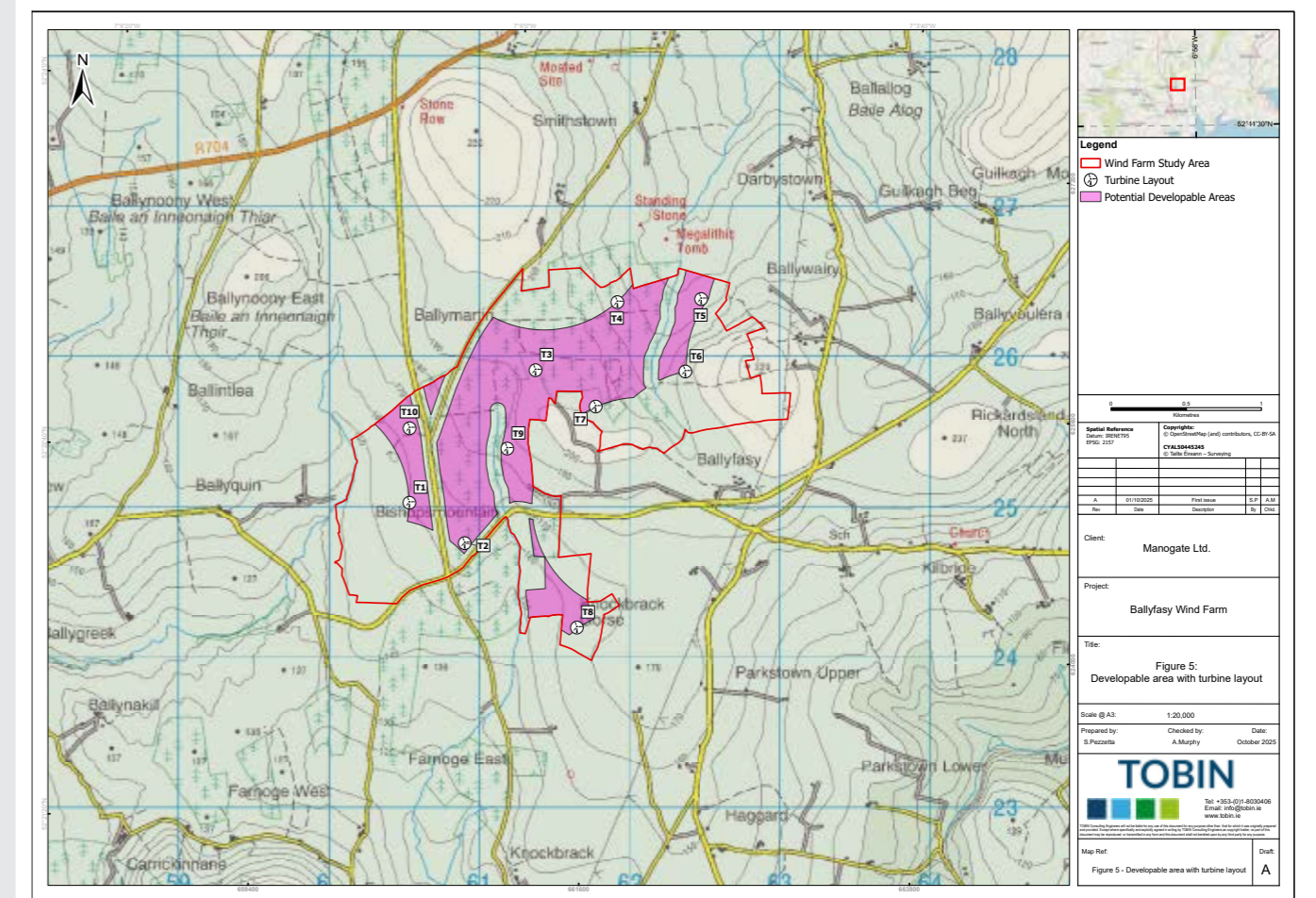


Figure 5 Developable area with turbine layout





Legend

- Wind Farm Study Area
- T Turbine Layout

0 0.5 1
Kilometres

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| Spatial Reference | | Copyrights: | |
| Datum: IRENET95 | | © OpenStreetMap (and) contributors, CC-BY-SA | |
| EPSG: 2157 | | CYAL50445245 | |
| | | © Tailte Éireann – Surveying | |
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| Rev | Date | Description | By Chkd. |
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| Client: | | Manogate Ltd. | |
| Project: | | Ballyfasy Wind Farm | |
| Title: | | Figure 6: Final turbine layout | |
| Scale @ A3: | | 1:20,000 | |
| Prepared by: | Checked by: | Date: | |
| S.Pezzetta | A.Murphy | October 2025 | |
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| Map Ref: | Draft: | | |
| Figure 6 - Final turbine layout | A | | |

Figure 6 Final turbine layout

The Proposed Project

The proposed project comprises:

- The wind farm site to include 10 turbines, an onsite 110 kilovolt (kV) substation and ancillary infrastructure. The proposed turbines have a tip height of between 170 metres and 180 metres, a hub height between 95 metres and 105.5 metres and a rotor diameter between 149 metres and 163 metres.
- Grid Connection Options (GCO), two options being considered.
- Works along the proposed Turbine Delivery Route (TDR).

The proposed project is the subject of two separate planning applications. The first application is for the proposed wind farm and on-site 110 kV substation along with the works on private lands along the proposed TDR. The second application is for the proposed grid connection. Both planning applications will be submitted in parallel to An Coimisiún Pleanála.



Examples of grid route trenching work

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 Ballyfasy Wind Farm substation and the national grid. Two options for the grid connection are being considered to connect the proposed project to the national grid.

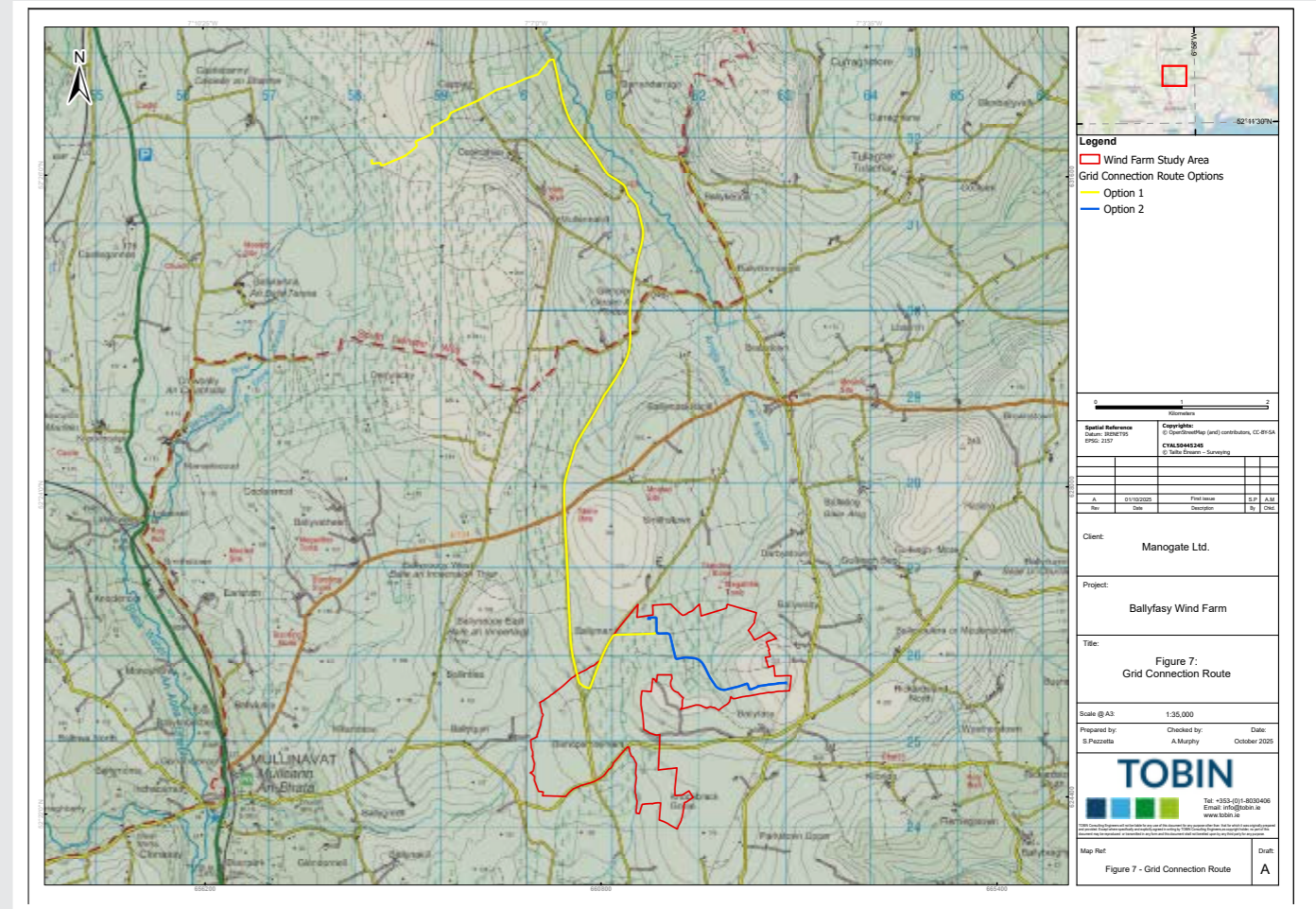
Grid Connection Option (GCO) One proposes to install a 110 kV underground cable from the proposed onsite substation to the consented Castlebanny Wind Farm 110 kV substation, 12 km to the north.

GCO Option Two would connect the onsite substation with the existing 110 kV Great Island-Kilkenny overhead line, which crosses 2 km to the east of the proposed wind farm site.

A single grid connection will be constructed for the proposed project and will become a permanent component of the Irish national grid network. The GCO option constructed will be determined by the grid connection offer received following EirGrid/ESB Networks post-planning system studies.

The proposed grid connection options are shown on **Figure 7** below.

Figure 7 Proposed Grid Connection Options





Lasting Benefits to the Community

Ballyfasy Wind Farm is more than just a renewable energy project — it's an opportunity to create positive, lasting change for the local community. By supporting local employment, contributing annual rates to the local authority and establishing a Community Benefit Fund, the proposed project would provide meaningful support where it matters most.

The Renewable Electricity Support Scheme (RESS) is a key initiative in the Government's Climate Action Plan. Every RESS-supported project is required to give back through a Community Benefit Fund. This fund is designed to enhance the environmental, social and economic wellbeing of the local area, ensuring that the community thrives alongside the development.

We believe that those living closest to the project should see direct benefits, which is why a portion of the fund is allocated to Near Neighbour payments.

At the same time, we are committed to ensuring that the wider community also gains from this initiative, fostering a stronger, more vibrant local area for everyone.

Together, we can harness the power of renewable energy to support jobs, strengthen our community and build a more sustainable future.



What will the Community Benefit Fund look like?

In May 2025, the Department of Climate, Energy and the Environment published an updated guide to Community Benefit Funds under the Renewable Electricity Support Scheme, the Government's 'Rulebook for Community Benefit Funds under 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 their own Community Benefit Fund. One particular focus 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. If the project seeks an alternative route to market, Manogate Ltd pledges to match these contributions.

Ballyfasy Wind Farm has the potential to produce between 180,000 MWh and 227,000 MWh of clean electricity per year. This means that the project could contribute approximately €360,000 per annum to the Community Benefit Fund for the first 15 years of its operational life.

Over the lifetime of Ballyfasy Wind Farm, the Community Benefit Fund will be in the order of €5.4 million.

Ballyfasy Wind Farm would contribute an estimated €360,000 per annum to a Community Benefit Fund

The Community Benefit Fund would be an estimated €5.4 million over the 15-year RESS scheme period



This is an example of local support received from Sliabh Bawn Wind Farm

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

- **Direct Household Payments:** A payment of €1,000 is allocated annually to each household located within a 1 km radius of onshore wind projects, as well as payments under that amount for households between 1 km and 2 km of wind projects.
- **Sustainable Development Initiatives:** At least 40% of the fund supports local projects focusing on initiatives aligned with the 17 United Nations Sustainable Development Goals. Projects are selected through a public and open process where initiatives are proposed by local clubs, societies and other entities.
- **Administration Costs:** Up to 10% of the fund may be used for administrative purposes to ensure effective governance and operation of the 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



Sliabh Bawn Wind Farm supports many local initiatives through its Community Benefit Fund



How the fund works

In the event that Ballyfasy Wind Farm receives a planning grant and reaches commercial operation, it is envisaged that the project team and the local community will work together to establish a Local Fund Committee for the Ballyfasy Wind Farm Benefit Fund. This local 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/>
 or at www.ballyfasywindfarm.ie/community.

Environmental benefits

The proposed development will have an estimated installed capacity of between 57 MW and 72 MW. Over the 35-year lifetime of the project, approximately 1.8 million tonnes of carbon dioxide (CO₂) are expected to be offset compared to traditional electricity generation.

The Ballyfasy Wind Farm will produce between 180,000 and 227,000 MWh of electricity per year (output depends on final turbine type). This will be sufficient to supply the equivalent of between 40,300 and 50,900 Irish households with electricity per year – enough to power all the homes in Co. Kilkenny.

During construction and turbine manufacture, some carbon is lost to the atmosphere, but this is anticipated to be offset by the wind farm itself within an 18 month payback period. These details will be provided in the Environmental Impact Assessment Report, which will include a detailed carbon calculation.



The proposed Ballyfasy Wind Farm would have the capacity to provide enough electricity to power more than 40,000 homes in Co. Kilkenny



Employment opportunities

The proposed project would bring employment opportunities. At peak construction, up to 75 people would be directly employed while an estimated two-three full-time jobs in operation and maintenance are also required to run the wind farm. Demand for a wide range of products and services would create indirect employment.



Council rate contributions

Under current guidelines, it is estimated that Kilkenny County Council will receive a contribution of approximately €570,000 in annual rates from Ballyfasy Wind Farm over its 35-year lifetime. The exact figure will depend on final turbine type and wind farm output. 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 application 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
- Chapter 7 Ornithology
- Chapter 8 Land, Soils and Geology
- Chapter 9 Hydrology and Hydrogeology
- Chapter 10 Shadow Flicker
- Chapter 11 Material Assets
- Chapter 12 Noise and Vibration
- Chapter 13 Landscape and Visual Impact Assessment
- Chapter 14 Air Quality and Climate
- Chapter 15 Archaeology and Cultural Heritage
- Chapter 16 Traffic and Transport
- Chapter 17 Major Accidents and Natural Disasters
- Chapter 18 Interaction of the Foregoing
- Chapter 19 Schedule of Mitigation

Below 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

The Population and Human Health chapter examines the potential impacts of Ballyfasy Wind Farm on the local and regional community. The assessment on population considers the current land use of the proposed site, 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 Ballyfasy Wind Farm, the following are the potential effects on the local human environment:

- Short-term boost to the local economy (over a period of approximately 24 months).
- Increase in employment, up to 75 people are expected to be directly employed during peak construction phase. Once operational, it is estimated that the wind farm will provide two to three full-time jobs in operation and some part-time jobs and maintenance.
- Traffic disruption 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. The proposed project is not anticipated to have a significant impact on tourism and amenity in the local area or wider region.

It is considered that the proposed wind farm will likely have a neutral long-term effect on the tourism experience and numbers in the vicinity of the proposed site. There is a potential positive cumulative effect for tourism and recreation in the event of increased investment in the area from the community benefit fund.

Each of these issues has been fully assessed and are being documented as part of the EIAR.

Biodiversity

Multi-year ecological studies were undertaken for the proposed Ballyfasy Wind Farm to collect and collate data. An overview is outlined below.

The proposed wind farm is predominantly located within low ecological value conifer plantation and agricultural lands. There are no ecologically designated sites or protected flora on the proposed site. The wind farm design was optimised to avoid watercourses that pass through the site. There will be no in-stream works. The project also includes biodiversity enhancements, e.g. native woodland planting at construction phase compounds.

Ornithology

Ornithology (bird) surveys were carried out for the proposed Ballyfasy Wind Farm between May 2020 and March 2025 (inclusive). Species of note recorded using the wind farm site and wider study area include lesser black-backed gull, buzzard, kestrel, golden plover, hen harrier and merlin.

The effects of the proposed Ballyfasy Wind Farm are not predicted to result in significant effects on any Important Ornithological Feature during construction, operation or decommissioning. Accordingly, no residual or cumulative impacts have been identified.

The number of bird 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 kestrel and other birds of conservation concern such as lesser black-backed gull and golden plover. The results will be included in the EIAR.

Land, Soils and Geology

Site walkovers, mapping and surveys were carried out to determine site conditions. The proposed wind farm site is not sensitive in terms of the soils and geological environment. Desktop studies and site investigations have indicated that no peat is present. The dominant soil type in the study area is coarse loamy drift with siliceous stones, classified as well-drained mineral soil of the brown earth type.

The proposed wind farm site is predominantly underlain by the Ballylane Formation bedrock, which is generally characterised by green and grey slate interbedded with thin siltstone layers. A smaller portion of the proposed wind farm site is underlain by the Oaklands Formation, comprising green, red-purple, and buff slate with siltstone. Excavation of bedrock from the proposed on-site borrow pits 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 proposed Ballyfasy Wind Farm site is located across two Water Framework Directive (WFD) catchments: the River Suir and the River Nore. Surface water and shallow groundwater flow across the proposed site is shaped by the local topography and geomorphology, creating a natural divide where drainage is directed in different directions. The proposed wind farm is located in three subbasins: Arrigle_010, Smartscastle_010, and Blackwater (Kilmacow)_020.

The overall water quality in the area surrounding the proposed Ballyfasy Wind Farm has generally been classified

as moderate to good over the past two decades, coinciding with the commencement of regular monitoring by the Environmental Protection Agency.

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 when a moving shadow passes over a window and results in rapid change or flickering of the incoming sunlight.

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).

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 Wind Energy Development Guidelines (WEGs) propose that future projects should be conditioned to prohibit any shadow flicker from occurring.

Manogate Ltd has committed to minimising any adverse effects from the proposed Ballyfasy Wind Farm on the local community by ensuring near-zero shadow flicker at the receptors identified within 1.63km of the proposed 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.

Noise and Vibration

Environmental noise from wind energy development is assessed using the current 2006 Wind Energy Development Guidelines (WEGs) 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 Manogate Ltd 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 WEGs specify that noise limits at neighbouring properties are set between 35 dB(A) and 45 dB(A) depending on the time of day and the level of background noise.

Background noise at noise-sensitive locations is measured simultaneously with windspeed. Background noise can include wind-generated noise in foliage and other sources such as farm activity or road traffic. To measure this, noise level meters are typically placed 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 WEGs.

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 WEGs 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", Manogate Ltd commits to operating well above this benchmark. We have adopted a minimum setback standard of at least 720 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.

During the construction and decommissioning phases, associated noise and vibration is not expected to exceed the proposed threshold values identified in line with best practice guidance contained in British Standard 5228. Most construction activities are located far enough from noise-sensitive locations to minimise impacts. The predicted levels associated with construction and decommissioning activities are expected to be well below the adopted assessment criteria for noise and vibration.

During the operational phase of the proposed Ballyfasy Wind Farm, the residual operational turbine noise levels are calculated to be within best practice noise limits recommended in government guidelines at all noise-sensitive locations in proximity to the proposed site.

Landscape and Visual Amenity

Detailed studies have been carried out on the landscape and visual impact of the proposed Ballyfasy Wind Farm. The layout and positioning of the turbines have been carefully considered to minimise potential impacts on sensitive receptors and key landscape features.

In the case of this wind farm, particular attention was given to the guidance set out in the Wind Energy Development Guidelines for Planning Authorities (WEGs 2006) and the Draft Revised WEGs (2019), which served as the principal framework for siting and design decisions. These studies inform the Landscape & Visual Impact Assessment (LVIA) within the EIAR.

Local community views are considered to be those experienced by people who live, work and move around the area within approximately 5 km of the proposed wind farm site.

Overall, local community receptors will afford some clear views of the turbines, where they will present as defining built features in this landscape. However, it is considered that the scale and nature of the proposed project can be well accommodated within this robust landscape context, which is influenced by existing wind energy development and other typical rural and working land uses.

Indeed, it is not considered that the proposed turbines will significantly detract from the productive rural values of this landscape context.

Archaeology and Cultural Heritage

The Archaeology and Cultural Heritage study assesses the potential effects of the proposed Ballyfasy 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 turbine layout will not result in any direct impacts on known monuments. The EIAR will provide details of all monuments in the vicinity, as well as an impact assessment for the proposed project on Archaeology and Cultural Heritage.



Viewpoint from Tory Hill of proposed and existing turbines



The Planning Process

The planning application will be submitted directly to An Coimisiún Pleanála by Manogate Ltd. 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.

During the project design and environmental assessment, Manogate Ltd carried out consultation with An Coimisiún Pleanála and the local planning authority, Kilkenny County Council. The planning application will be supported by an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS).

When the EIAR is complete, Manogate Ltd will be ready to submit a planning application to An Coimisiún Pleanála for the proposed Ballyfasy Wind Farm. A concurrent but separate application will be submitted to An Coimisiún Pleanála for the grid connection. It is anticipated that these applications will be submitted in Q4 2025.

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 Coimisiún Pleanála, the full documentation will be uploaded and available to view at www.ballyfasyplanning.ie. The grid connection application will be available to view at www.ballyfasygridplanning.ie

The planning documents will also be available at www.pleanala.ie. The EIAR will also be available for viewing at the offices of An Coimisiún Pleanála and Kilkenny County Council.

How can you engage with the planning process?

There is a Frequently Asked Questions section on An Coimisiún 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 Board while the documents are available for viewing after the application has been submitted.

View of the proposed turbines from the Local Road at Ballinclare



Next Steps

Community Liaison Officers Tom Whelan and Tom Boland are available to speak one-to-one with local stakeholders. We actively encourage you to contact them.

- Meet the Ballyfasy project team at a community engagement clinic on Tuesday November 11, 1.30pm-8.30pm, Third Floor, Marine Point, Belview Port, Kilkenny, X91 W0XW. By appointment only, to book a time slot, please contact CLO Tom Whelan on 087 741 1122 or at ballyfasyproject@futureenergyireland.ie
- Manogate Ltd will submit a planning application to An Coimisiún Pleanála for the proposed wind farm and a second application for the grid connection. It is anticipated that these will be submitted in Q4 2025.
- When all documentation has been received and validated by An Coimisiún Pleanála, the full planning applications will be uploaded and available at www.ballyfasyplanning.ie for the wind farm and at www.ballyfasygridplanning.ie



Community Engagement Clinic

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Tuesday November 11,
1.30pm-8.30pm,
at Marine Point, Belview Port.
Book your slot time.**



Contact Us

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www.futureenergyireland.ie/privacy-policy/

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