Community Report

Castlebanny Wind Farm

Co. Kilkenny

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1 INTRODUCTION

Springfield Renewables Ltd (Springfield), supported by Coillte and ART Generation is seeking planning permission from An Bord Pleanála to construct and operate a commercially viable wind farm project on lands at Castlebanny, in Co. Kilkenny.

Springfield commenced engagement with the local community during the early stages of project design with the objective of ensuring that the views and concerns of all members of the local community were considered as part of the project design and the Environmental Impact Assessment process.

In relation to national guidance on community engagement and consultation for wind energy developments, the *Wind Energy Development Guidelines* (Department of Environment, Heritage and Local Government, 2006) state that:

"While it is not a mandatory requirement, it is strongly recommended that developers of a wind energy project should engage in active consultation and dialogue with the local community at an early stage in the planning process, ideally prior to submitting a planning application".

This was further addressed in the *Preferred Draft Approach to Wind Energy Development in Ireland* (June 2017) which stated the following with respect to planning applications for wind farms:

"Planning applications must contain a Community Report prepared by the applicant which will specify how the final proposal reflects community consultation. The Community Report must also outline steps taken to ensure that the proposed development will be of enduring economic benefit to the communities concerned".

The *Draft Revised Wind Energy Guidelines* (Department of Housing, Planning and Local Government, 2019) has retained this position stating the following:

"In order to promote the observance of best practice, planning authorities should require applicants to prepare and submit a Community Report with their planning application and a condition on any subsequent planning permission should require developers to carry out the development in accordance with the approved Community Report".

This Community Report outlines Springfield's engagement and liaison with the community local to the area of the proposed wind farm.

2 BACKGROUND

Coillte and ART Generation have a long history of working with communities and our experience around the country has generated an inherent understanding of the communities in which we operate. We aspire to work **with** the communities surrounding our energy sites and wish to build projects that are good for us as commercial companies, good for our neighbours, and that contribute to the fulfilment of national and global Climate Change objectives.

Coillte has developed four wind farms in Ireland over the past decade and has learnt many valuable lessons in relation to working with local communities and the importance of including local people in decisions that affect them. In 2017, the Renewable Energy Team undertook a review of our Community Engagement process and embarked on the design of a radically enhanced approach with the support of AstonEco Management.

The key elements of this approach, referred to as our 'Fair Play' model are:

- Detailed and systematic engagement with all close neighbours to the project (within 2 km) from a very early stage of project design.
- Open, transparent dialogue and communications.
- Creating opportunities for open, two-way dialogue on key issues.
- Ensuring that the local community have access to all relevant information as soon as it is available, in an understandable format.

The approach emphasises a focus on the residents of dwellings within 2 km of the initial 21 turbine layout as these people will be closest to the development and will therefore be most sensitive to any potential effects caused by the development. In the past, engagement has commenced when the project is almost fully designed and being prepared for planning submission. In our 'Fair Play' approach we started engagement in the early stages of layout development. The approach also recognises the need to keep people further away from the development informed about the project as details become more defined.

In order to build better projects, we have recognised the imperative of enabling meaningful engagement between the project team and the local residents. This engagement has to pass beyond just information provision, and through open, transparent dialogue and move towards a more collaborative approach to infrastructure design that has a National interest but a local impact.

What are our external drivers for Stakeholder Engagement?

- Actively engaging in the conversation helps raise awareness and provides insight that can ensure successful project outcomes for everyone.
- Active and open dialogue with our community stakeholders is essential for the success of our projects. It is through two-way dialogue that the project can responsibly partner with local communities.
- The project is committed to strengthening partnerships with local communities.
- Public support is achieved by actively working with communities towards mutually desirable goals. Meaningful communication with stakeholders creates trust and mutual respect, as well as a shared understanding and vision of what a successful project can look like.
- Timely, proactive, open and honest communication is a cornerstone of our Engagement Charter. This approach helps to minimise possible adverse impacts on our neighbours and instead helps to achieve positive social, economic and environmental outcomes.
- In line with national policy, the project team are committed to meaningful consultation, which brings about constructive local dialogue, as well as mutual trust and understanding.

3 COMMUNITY ENGAGEMENT RESOURCES

In order to implement this 'Fair Play' approach Coillte and ART Generation have resourced this project with a number of dedicated staff from the outset. The following key personnel have been involved in Community Engagement on the Castlebanny Project from within Coillte and ART Generation:

Shane Lowry is the Community Liaison Officer (CLO) for the project. Shane enjoys working with people and brings many years of experience across different business sectors. Shane's role is to ensure project communications are distributed to the local community and as the main point of contact for the community to discuss any queries or concerns that they might have.

Kieran O'Malley is Coillte's Project Manager for the proposed Castlebanny Wind Farm development. Kieran brings extensive experience having worked as a civil and environmental engineer for over 24 years.

Andy Fox is Coillte's Community Engagement Manager. Andy has spent the past 18 years working hand in hand with communities to drive towards sustainable local development. Andy has full responsibility for the development and implementation of Coillte's Community Engagement Strategy and Policy, with a focus on enhancing social acceptance across Coillte Renewable Energy's portfolio of development projects.

Richard Walsh is the owner of ART Generation. A native of Co Kilkenny, he has been involved in the development and operation of wind energy since 2002. Richard brings extensive experience and knowledge to the project alongside his deep understanding of the local area.

Tobin Consulting Engineers are leading a multidisciplinary team in carrying out studies, design and preparation of the planning application and Environmental Impact Assessment Report (EIAR) on behalf of Coillte and ART Generation. Tobin Consulting Engineers has wide ranging experience in all aspects of the feasibility assessment, environmental impact assessment, planning, design and construction of wind farms and other energy related projects.

4 SUMMARY OF COMMUNITY ENGAGEMENT CARRIED OUT

Shane Lowry was appointed as the CLO for the proposed project in September 2019. Our initial work was with designated houses within the community to arrange agreement for and the placing of noise monitoring units around designated dwellings bordering the project perimeter.

As outlined above, Coillte emphasises a focus on the residents of dwellings within 2 km of the site as these people will be closest to the development and will be most sensitive to any potential effects caused by the proposed development. Before commencing the engagement, we needed to identify the 2 km zone to commence within. This was achieved by taking the initial turbine layout and applying a 2 km buffer. Within this area all dwellings, lived in, vacant and with the potential to be occupied were mapped. As the design progressed, we established a "buildable" or more accurate developable area. We then buffered this area by 2km and engaged with the residents in this area.

Introduction engagement:

The initial individual house engagement commenced in December 2019, with a project leaflet starting to be circulated to houses within 2 km of the project. This phase continued until the imposition of Covid-19 restrictions in mid-March 2020 as the CLO tried to make contact with as many residents as possible. The project leaflet introduced the project and the team and included a map and basic information reflecting the status of the project at the time. As part of this process, a low-call number and project email address were created to aid communication, and these were included in the project leaflet.

Through hand delivery of the leaflets, the CLO was able to meet and engage with many neighbours within the immediate zone. Any location where there was nobody at home was called to again on a different occasion, typically at a different time of day. Through discussions on the doorstep and follow up phone calls, the CLO was able to answer some of the early queries, noted feedback and discussed the engagement process, how it works for individuals and how they would be kept informed as well as how to contact the project team with any queries.

Before the imposition of Covid-19 restrictions in mid-March, the project team had met or had calls with over 76% of households within 2Km, and where unavailable, the balance of houses were engaged through a follow up introduction letter and invite to contact the team via a mail drop.

Individual calls and emails received by the project were responded to either in person, by phone/ text as requested or by email as they arose.

Next Phase Engagement:

A project website was launched in May 2020 and all materials circulated in the local area were uploaded on to this site. The site was updated on an ongoing basis from then onward. The project website also included contact details for any queries.

In August 2020, a detailed project brochure was prepared which included information about the site and the proposed development, site layout map and information on the community benefit scheme. The brochure also included information on the planning process, the site design process, information on key aspects of the environmental studies and some of the environmental benefits associated with the proposed project and next steps.

This coincided with easing of Covid-19 restrictions, which allowed for distribution of the comprehensive project brochure and accompanying letter during mid-August to households within 2Km of proposed turbines.

Where there were contact details available from previous discussions, we called to inform individuals in advance and asked if they would like to meet *(adhering to Covid-19 restrictions guidelines*) or to receive a brochure via the letterbox for review with an invitation to call once they had read the brochure.

For this round of engagement there were meetings and / or calls/texts with over 75% of households within 2Km. Residences where contact details were not available were engaged through a mail drop into each letterbox with a project brochure and accompanying letter with an invitation to make contact with the team. The project brochure was also uploaded onto the project website for the general public to view.

Individual calls and emails received by the project were responded to either in person, by phone or text or by email as they arose. Small group meetings also took place both in person and over zoom based on the restrictions in place at the time as requested by interested parties.

Meetings with local political representatives:

In parallel with the general community engagement, during August and September 2020 there were meetings with all of the local councilors representing the two electoral districts within which the project is located, Callan - Thomastown and Piltown, and the Kilkenny based TD's. They were given an overview of the project along with some copies of the project brochure and contact details in case they had any further queries after the meetings.

Online virtual tour and information platform:

As an in-person open event was not possible due to Covid-19 restrictions, an online virtual presentation was prepared. This was accessible from the front page of the project website and went live on the 13th October 2020.

An invitation letter to the on-line presentation was issued October 14th onward through a mail drop and where necessary via post, text and email to cover all households within 2Km of the project and was extended past the 2Km area to surrounding houses. An advertorial was published in the local newspaper, the Kilkenny People, which included details of the online resource. Local Parishes were emailed with a request for details to be included in the next Parish Newsletter. Information posters were also put up in a shop window in Ballyhale village which included details of the online resource and Community Liaison Officer contact details.

As of 18th January 2021, there were 1007 visits to the virtual tour. A number of calls and emails were received from the public after they had viewed the presentation.

A summary of community engagement is set out in Table 1 below.

Table 1 – Summary of Community Engagement for Castlebanny Wind Farm

Date	Engagement (Describe)
Sept 2019	Community Liaison Officer appointed for the project. CLO called and arranged with selected households to have a noise monitor located on their property in September.
Sept 2019	Installation of noise monitors at selected dwellings. Liaison with residents as part of process.
14th Dec 2019	Dedicated Project locall number and email goes live
14th Dec 2019	Commenced engagement in the 2 km zone.
19th Dec 2019	Request for pre-application consultation letter to determine whether the project is a Strategic Infrastructure Project issued to An Bórd Pleanála. This was notified on ABP website.
2nd January 2020	Article in the Kilkenny People about project based on the pre-application consultation request letter to An Bórd Pleanála.[1]
Jan - Mar 2020	Circulation of leaflet and ongoing engagement with households within 2 km continues.
Feb - Mar 2020	Project Introduction letter with invitation to contact circulated through a mail drop to those houses still not available or contactable.
12th March	Initial Covid-19 restrictions are put in place nationally
April 2020	Where we had contact details we posted the project newsletter and accompanying letter with an invite to make contact to the remaining balance of households who had not replied to the previous Mail drop.
May 2020	Dedicated project website launched.[2] Website includes project information and Community Liaison Officer contact details and previous leaflet and updates uploaded.
Aug – Sept 2020	Detailed brochure and accompanying letter circulated to all houses within 2 km of any proposed turbine location by the project CLO, and in tandem uploaded onto the project website for the general public to view. Engagement was undertaken adhering to Covid-19 guidelines for follow on meetings. Individual calls/texts and emails received by the project were responded to either in person, by phone/ text as requested or by email as they arose.
Aug – Sept 2020	In parallel with the general community engagement, there were meetings with all of the local councilors representing the electoral districts of Callan – Thomastown and Piltown and the Kilkenny based TD's. They were given an overview of the project along with some copies of the project brochure and contact details in case they had any further queries after the meetings.

[1] https://www.kilkennypeople.ie/news/home/505647/large-wind-farm-proposed-for-south-kilkenny.html
[2] https://www.castlebannywindfarm.ie/

Sept 2020	Meetings were arranged between project team and local stakeholders to discuss issues and concerns.
13th Oct 2020	Project virtual tour organized in lieu of project open evening(s) due to Covid19 restrictions goes live (see project website).
14/15th Oct 2020	An invitation letter to the on-line presentation issued through a mail drop and where necessary posting, texted, emailing to cover all households within 2Km and extended out further past the 2Km area to surrounding houses.
21st Oct 2020	Advertorial was published in the Kilkenny People which included details of the online resource.
21st Oct 2020	Information posters were also put in a disused shop window in Ballyhale village which included details of the online resource and Community Liaison Officer contact details.
4th Nov 2020	Local Parish newsletters emailed with request for inclusion of details of project virtual tour in the next Parish newsletter.

Table 2 below sets out the number of occupied dwellings located within 2 km of the proposed turbines.

Table 2 – Occupied Dwellings Within 2 km of Proposed Turbines

Distance from Turbines	No. of Dwellings	Cumulative Total
750 - 1000 m	23	23
1000 – 1500m	46	69
1500 – 2000 m	71	140

A summary of the key issued raised during the course of engagement are set out in Table 3 below.

Table 3 – Summary of Key Issues Raised During Community Engagement

Topic	Issue Raised
Turbine Noise	Potential effect on residential amenity Potential effect on health associated with noise, low frequency sound, infrasound and amplitude modulation Potential effects on noise sensitive persons
Visual Impact	Potential effect on residential amenity Scale of the turbines is very large
Shadow Flicker	Potential effect of shadow flicker
Construction Traffic and Noise	Potential effects arising from use of local roads during construction – large trucks on narrow roads Potential effects of noise associated with construction traffic on quiet roads Potential effects of construction noise (machinery, borrow pit excavations, etc. on residential amenity
Property	Potential effects of the project on property values in the area Potential effects on ability to obtain planning permission for dwelling in the future
Community Benefit Fund	Questions around how the community benefit fund would be structured. Suggestions that those nearest the project should benefit more from the scheme. Concerned that distant communities and groups will get most of the benefit from the community fund while those nearest have the greatest effects.
Water	Potential effects on water supplies (ground water levels). Potential effects on water supplies (drinking water quality) Potential effects on water associated with St. Molin's Well
Biodiversity	Potential effects on local flora and fauna.
Horses	Potential effects of turbines on horses

These themes were discussed throughout the engagement process and were answered in a transparent and open manner. Ultimately not all themes could be or were addressed to the satisfaction of all, but the project team remains open in trying to find fair and equitable solutions for all including sharing information sources at our disposal. All of the above themes are also addressed clearly in the EIAR.

5 INFLUENCE OF ENGAGEMENT ON THE EVOLUTION OF THE WIND FARM DESIGN

As outlined in Section 4 above, the main concerns of local residents include impacts relating to wind turbine noise, visual impacts, shadow flicker and associated impacts on residential amenity, construction traffic and construction noise, impacts on water supply and water quality and impacts on the flora and fauna in the area.

5.1 IMPACTS ASSOCIATED WITH NOISE AND VISUAL IMPACTS

These issues were addressed as part of the layout design process. A decision was made early in the design process to ensure that a minimum distance of 750m would be maintained between nearest dwellings and turbines. This is more than the current recommended setback of 500m as set out in the Wind Energy Development Guidelines 2006. The setback of 750m also complies with the Draft Wind Energy Development Guidelines 2019 which are not, as of the time of writing this report, official policy and may change in their final form. These draft guidelines recommend a minimum setback of 4 times the tip height of proposed turbines to protect residential amenity – this would equate to a minimum setback of 740m based on proposed tip height of 185m.

Various configurations and layouts were considered as part of the initial design considerations which included 33 turbine 170m tip height and 25 turbine 185m tip height arrangements. Based on detailed visual impact assessment undertaken as part of the environmental impact assessment, a 21 turbine 185m tip height layout was deemed to be the most suitable and provides a balance between efficient use of the project site area and consideration of visual impacts on the local and wider area.

A number of residents requested images of what the project would look like from their particular location. The photomontages prepared for the project are not intended to show the view from every dwelling but to be representative of local, regional and sensitive views in a wide area around the project. In these cases, where the photomontages did not cover a particular cluster of dwellings, informal images were prepared and issued to these residents to help get a sense of what the project might look like from their location.

The 21-turbine layout was subject to a detailed noise impact assessment and it was determined that, based on the proposed layout and turbine characteristics, the proposed layout would meet the noise requirements set out in the Wind Energy Development Guidelines 2006. It is anticipated that the proposed layout could also conform to the requirements of new wind energy development guidelines, based on the Draft Wind Energy Development Guidelines 2019 although it is considered that these are likely to change in the final published version.

A review of the literature relating to health effects associated with wind turbine noise finds no evidence of any significant health effects associated with low frequency noise or infrasound. Amplitude modulation is a rare occurring event that is not possible to predict and can be managed through adjustment of turbine operations where it does occur. Further details on this can be found in the noise and vibration and landscape and visual impact assessments in Chapters 12 and 13 of the EIAR respectively.

5.2 IMPACTS ASSOCIATED WITH SHADOW FLICKER

This issue was considered as part of the environmental impact assessment process and the proposed layout can conform with the Wind Energy Development Guidelines 2006 of maximum 30 minutes of shadow flicker per day or 30 hours per annum at any sensitive receptor by management of the operation of the turbines during periods when there is a potential for shadow flicker.

Further to this, in accordance with emerging best practice and the draft Wind Energy Development Guidelines 2019, the project is committed to eliminate shadow flicker through the management of turbine operations.

Further details on this can be found in the shadow flicker assessment in Chapter 10 of the EIAR.

5.3 IMPACTS ASSOCIATED WITH CONSTRUCTION TRAFFIC AND CONSTRUCTION NOISE

The main impact associated with construction traffic in the initial design was considered to be along the local road L-7451 between the R704 and the current entrance to the main site area. Following concerns raised by local residents, it was decided to move the main point of access to an existing

junction further east along the R704 with just a single crossing point on the L-7451. The location of this crossing point on the L-7451 was moved over 150m further to the north from the existing site access to further reduce traffic related noise on nearby residences. Concerns were also raised relating to the location of a site compound adjacent to the crossing point of the L-7451. This was moved further into the site to minimise construction related noise on the nearest residents.

The noise assessment considered all construction related noise associated with machinery and traffic and all site activities and found that the proposed layout complies with all relevant regulations.

Further details on this can be found in the noise and vibration and traffic and transport assessments in Chapters 12 and 16 of the EIAR respectively.

5.4 IMPACTS ON PROPERTY

There are a number of wide-ranging international studies that consider potential effects of wind farms on nearby property values. The findings from these studies vary but, in most cases, indicate a slight negative, variable or neutral effect. Some indicate that community engagement and community benefits may improve outcomes in this area. The significant community benefit fund and near neighbour scheme associated with the project have the potential to make the local area more attractive. Impact on property values is discussed in further detail in the assessment of population and human health in Chapter 5 of the EIAR.

5.5 COMMUNITY BENEFIT FUND

The community benefit fund will be arranged in accordance with current best practice and will be informed by proposed new government guidelines due in June 2021. Part of the community benefit fund will be allocated to a Near Neighbour scheme, which, under RESS1, requires a minimum payment of € 1,000 per annum to all residential properties within 1 km of turbines with discretion to increase this amount and to extend up to 2 km. The project team will be engaging with the local community post planning to inform the governance structure of the fund and the aims and objectives of the scheme. It is typical for such funds to have a distance limit for proposals to access the scheme and/or weighting criteria for proposals based on distance from the project.

5.6 IMPACTS ON WATER SUPPLY AND WATER QUALITY

Concerns were raised about the potential for impacts on the water table associated with drawdown of water from dewatering of site excavations and on pollution of the water supply from site activities. Many properties have local wells and St. Molin's Well was identified as a sensitive location for water quality.

The proposed layout and all potential impacts on water levels and water quality associated with proposed construction activities were considered as part of the environmental impact assessment. There was an assumption made that all dwellings have a water supply 50m from the dwelling in the side nearest to the wind farm infrastructure. The assessment concludes that there is not likely to be any significant impact on water levels at domestic wells or other water supplies, including St. Molins Well or any significant impact on water quality associated with the proposed site activities. Accordingly, no changes to the layout were necessary based on this.

Further details on this can be found in the hydrology and hydrogeology assessment in Chapter 9 of the EIAR.

5.7 IMPACTS ON FLORA AND FAUNA

Concerns were raised about the impact on flora and fauna in the site area. Detailed site surveys and assessments were undertaken to consider potential impacts on all aspects of biodiversity including habitats, mammals, bats, birds, etc. The initial survey findings informed the layout design such that potentially sensitive areas were avoided in the initial layout design. More detailed surveys were

undertaken following from the preliminary infrastructure layout designs and some amendments were made to the layout to avoid sensitive areas e.g. badger setts. Based on these assessments, it is considered that there will not be significant impacts on biodiversity in general and no further changes to the layout are required.

Further details on this can be found in the biodiversity and ornithology assessments in Chapters 6 and 7 of the EIAR respectively.

5.8 IMPACTS ON HORSES

There is no scientific evidence of negative impact on horses associated with wind farms. There are numerous wind farms in Ireland and internationally and it is reasonable to assume that horses and other livestock graze nearby. If there was a significant effect on horses, it would have been brought to attention of relevant authorities. Some wind farms have developed equestrian trails that pass adjacent to wind turbines with no significant negative effect.

6 POTENTIAL ENDURING BENEFITS OF THIS PROJECT

Castlebanny Wind Farm has the potential to bring significant positive benefit to the local community. The project will create sustainable local employment, it will contribute annual rates to the local authority, and it may provide opportunity for local community investment in the project in line with the new Renewable Energy Support Scheme. A community benefit fund will be put in place for the RESS period of the project to provide direct funding to those areas surrounding the project.

6.1 COMMUNITY BENEFIT FUND

Two important areas of Government policy development are nearing completion which will have a bearing on the establishment of future community benefit funds, the updated Wind Energy Guidelines and the second Renewable Energy Support Scheme (RESS). Both sets of policy are expected to be finalised during Q2/Q3 2021 which will provide the Government requirements on future community benefit funds for renewable energy projects. We will fully take into account these two important policies as we present the Springfield approach to this community benefit fund.

Springfield expects that for each megawatt hour (MWh) of electricity produced by the wind farm, the project will contribute €2 into a community fund for the RESS period i.e. 15 years of operation.

If this project is constructed as currently designed, we estimate that a total of approximately 7.5 million euro will be available in the local area for community funding over the RESS period of the project. The above figure is indicative only and will be dependent on the generation capacity of the wind farm which is influenced by a number of factors including:

1. Number of wind turbines.

2. Capacity and availability of energy production of those turbines.

3. Quantity of wind.

How the fund will be used and administered?

The Community Benefit Fund belongs to the local community. The premise of the fund is that it should be used to bring about significant, positive change in the local area. To make this happen, our first task will be to form a benefit fund development working group that clearly represents both the close neighbours to the project as well as nearby communities. This group will then work on designing the

governance and structure of a community entity that would administer the Community Benefit Fund. We aim to commence this work if and when the project achieves a positive planning decision.

6.2 COMMUNITY INVESTEMENT OPPORTUNITY

What is meant by Community Investment?

The proposed Renewable Energy Support Scheme (RESS) sets out that future renewable energy project proposals enable the possibility for local communities to invest in projects in a meaningful way as a means to directly gain from the financial dividends that a project can provide should it be consented, built and operated. In response to this, Coillte have been working hard with external agencies to develop workable models of Community Investment. As with the benefit fund, we aim to take this work into the community following the work on the Benefit Fund and once clear guidance has been provided by the Department of Environment, Climate and Communications.

6.3 EMPLOYMENT OPPORTUNITIES

It is estimated that the proposed project will create approximately 100 jobs during the construction phase and 2 - 3 jobs during the operational and maintenance phases of the proposed development. During construction, additional employment will be created in the region through the supply of services and materials to the development. In addition to this, there will also be income generated by local employment from the purchase of local services i.e. travel and lodgings.

6.4 RECREATION

Humphrey Murphy BA, MBS, MMII Grad, MSc pending, of ILC was engaged to develop a recreation plan to consider the recreation potential of the site and the wider area and to prepare a strategy for engagement and development of recreation facilities within the site and connections with recreation sites and associated community groups and enterprises in the wider area.

Humphrey has experience in sports planning, tourism, and energy management and has worked in the strategic development and consultation process for a range of infrastructure, training, and accreditation models in Ireland, the UK, mainland Europe and in Russia. This has included development of recreation facilities at other constructed wind farms in Ireland such as Galway Wind Park.

The initial recreation plan for the site includes a parking and seating/picnic area, approximately 13 km of looped walks and outdoor exercise stations.

A variety of local organisations were contacted on behalf for the project to get their feedback and suggestions for an inclusive plan which is ongoing. The project team will continue to build relationships with these groups to further develop the recreational amenity as the project progresses.

7 ONGOING LIAISON AND CONTACT

A number of different phases have been detailed below with differing levels of engagement anticipated depending on the levels of project activity. Underpinning all of the engagement below will be a dedicated Community Liaison Officer for the project who is contactable by email and phone. These details will remain on the project website which will be in place for the duration of the project. As the project progresses, regular updates will be posted to this website.

Post Planning submission until 6 months pre-construction

During this period (12 -24 months) a number of key community related activities will continue to be progressed. The first is a participatory design process for the Castlebanny Community Benefit Fund (CBF). Approximately 6 months after the project has been submitted into the planning system the team will start a process of reaching out, initially to residents within the 2km zone and then slightly further afield, in order to bring together a small group of people who are interested in working on the design and structure of a community based entity that would ultimately run this Community Benefit Fund. At the point at which the project receives a positive planning outcome this process will then start with a scoping exercise followed by a series of facilitated workshops. It is hoped that representatives involved in existing local development initiatives will be stakeholders in this process and will therefore contribute to this strategy.

The second piece of work is to explore the potential for Community Investment in the project as outlined in the new Renewable Energy Support Scheme (RESS). This will probably follow on from the CBF work stream and is predicated by the release of clear guidance on this from the Department of Environment, Climate and Communications.

Pre- Construction and Construction phase

6 months prior to the commencement of construction on the project we will initiate the set-up of a liaison group. The project will meet with this group on a monthly basis to prepare for the construction phase and monitor activities during construction. This group will develop plans on communicating effectively with residents directly impacted by construction activities and deliveries, especially traffic planning to minimise disruption.

The project will also engage with local suppliers prior to the construction phase in order to outline the projects future needs and promote the use of local suppliers and service providers wherever possible. This may take the form of a “meet the buyer” event.

Operational Phase

The project will continue with a proposed annual meeting with the liaison group to update the group on project performance and address any issues identified. The Community Liaison Officer will also be available throughout this period to directly address any issues raised by local residents. As stated above, the project website will also be maintained as a method of providing regular, up to date information on the project. There will be regular updates on performance of the community benefit fund and regular calls for proposals for funding.

Decommissioning Phase

A year prior to the commencement of decommissioning of the project, the project team will engage with the established liaison group as well as all residents within the 2km zone to outline the decommissioning plan and address any issues identified at that time.

8 CONCLUSION

As outlined throughout this Community Report, there has been engagement on the project throughout the planning design phase to date. We fully recognise however that development of a proposed wind farm is a long and complex process and that there is ample time to jointly develop our community offerings with our near neighbours and other stakeholders, and we will be progressing these after the planning adjudication and decision phases should the project receive planning consent.

9 PROJECT LITERATURE

PROJECT LEAFLET

COILLTE
GROW · TRANSFORM · SUSTAIN

Castlebanny Wind Farm

Winter 2019

What's inside:

- Coillte and ART Generation
- Our Focus
- Our Environment
- Castlebanny
- Meet the Team
- Next Steps
- Contact Us

ART
ALTERNATIVE RENEWABLE TECHNOLOGIES
GENERATION LTD

Coillte and ART Generation

Coillte and ART Generation are jointly exploring the potential for a renewable energy project close to Mullinavat in Co Kilkenny. We aim to develop a responsible project in a way that will bring benefit locally, regionally and nationally.

Both Coillte and ART Generation teams have extensive experience in the development, delivery and operation of wind energy developments throughout Ireland.

ART Generation

ART Generation is a wholly Irish owned renewable energy company based in Ireland. It is a well-established energy development company with responsibility for managing the development, construction and operation of projects throughout Ireland including Foyle Windfarm in Co. Kilkenny. ART Generation most recently developed three wind farms in the counties of Kilkenny and Tipperary.

Coillte

Coillte, as Ireland's largest landowner, has a responsibility to contribute to the decarbonisation of the economy across all areas of its business. Through the Renewable Energy team, Coillte has been involved in the development of four windfarms at Raheenleagh, Castlepook, Cloosh and Sliabh Bawn contributing more than 300MW of clean power to the Irish energy market.

Climate Action Plan

In line with the 2019 All of Government Climate Action Plan, both Coillte and ART Generation are firmly committed to achieving Ireland's ambition of 70% of renewable electricity generation by 2030.

Our Environment

TOBIN Consulting Engineers are the lead planning and environmental consultants for the Castlebanny Wind Farm Project.

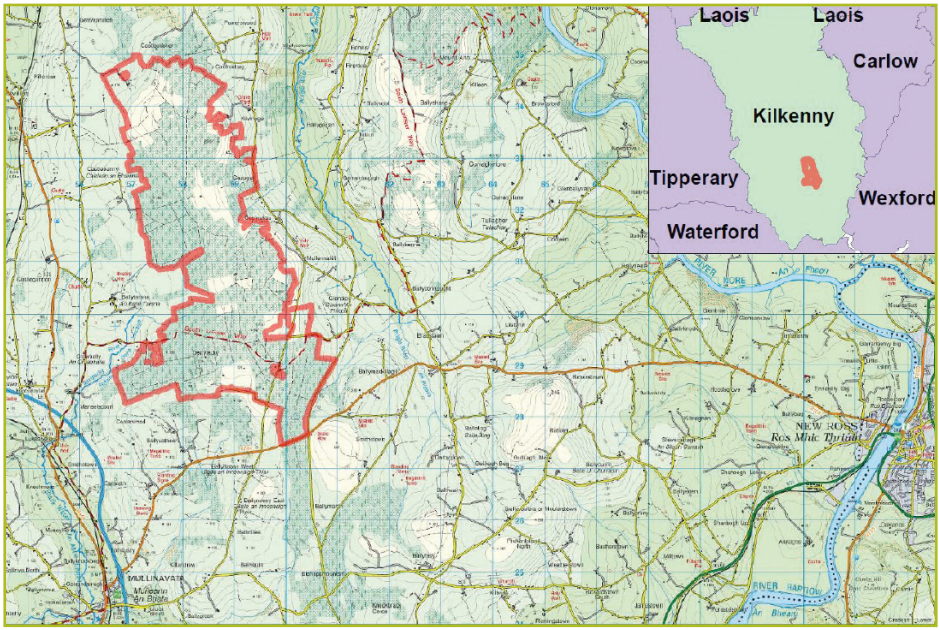
TOBIN Consulting Engineers is a multi-award winning Irish-owned and Irish-operated company providing services in Environment & Planning, Building & Infrastructure and Water. TOBIN has extensive experience in the completion of Environmental Impact Assessment, Appropriate Assessment, Engineering Design and Planning Submissions for sustainable renewable energy infrastructure across the country.

Wind Development projects undergo rigorous environmental analysis under a series of headings including: Population and Human Health, Biodiversity, Land, Soil, Water, Air, Climate, Material Assets, Cultural Heritage and Landscape.

Castlebanny

The proposed wind farm is situated near Mullinavat, Co. Kilkenny on a large site, approximately 7km in length and 3km in width, about 4,000 acres in total. The proposed wind farm area has the capacity to accommodate up to 24 turbines and generate enough clean electricity to power more than 70,000 homes and avoiding the emission of over 100,000t of CO_2 per annum.

The potential project will fully comply with the latest wind energy guidelines and we commit to a minimum set back distance from turbines to residential dwellings of 750m. A significant annual community benefit fund will be established in line with forthcoming Government policy which will include both funding for wider community initiatives and a Near Neighbour scheme focused on houses in close proximity to the project. Community Investment opportunities will also be explored as outlined in the governments new Renewable Energy Support Scheme (RESS).



Meet The Team

Richard Walshe is the owner of ART Generation. A native of Co Kilkeny, he has been involved in the development and operation of wind energy since 2002. Richard brings extensive experience and knowledge to the project alongside his deep understanding of the local area.

Kieran O'Malley is Coillte's project manager for the proposed Castlebanny Wind Farm development. Kieran brings extensive experience having worked as a civil and environmental engineer and renewable energy project developer for over 24 years.

Shane Lowry is our Community Liaison Officer. Shane enjoys working with people and brings many years of experience across different business sectors. Shane is your local contact for the proposed project at Castlebanny.

Andy Fox is Coillte's Community Engagement Manager. Andy has spent the past 15 years working hand in hand with communities to drive towards sustainable local development. Originally from Kenya and the UK, Andy now lives in Co. Wicklow.

Next Steps

1. Environmental studies will continue for the study area.
2. Community engagement will continue in the locality sharing information and listening to queries and concerns.
3. Quarter 1 2020 will see further communications and project details emerge as we develop our understanding of the project potential.

Contact Us

We welcome any engagement and interaction with you on any aspect of the proposed wind farm.

You can contact us by email at **castlebannywindfarm@coillte.ie**

or call a member of the project team on **087 286 5553** (Mon-Fri: 9am-5pm)

Address:
Coillte Office
Hartnetts Cross,
Macroom,
Co. Cork,
P12 XA50.

For more information visit:
www.castlebannywindfarm.ie
(launching soon)

PROJECT BROCHURE

COILLTE

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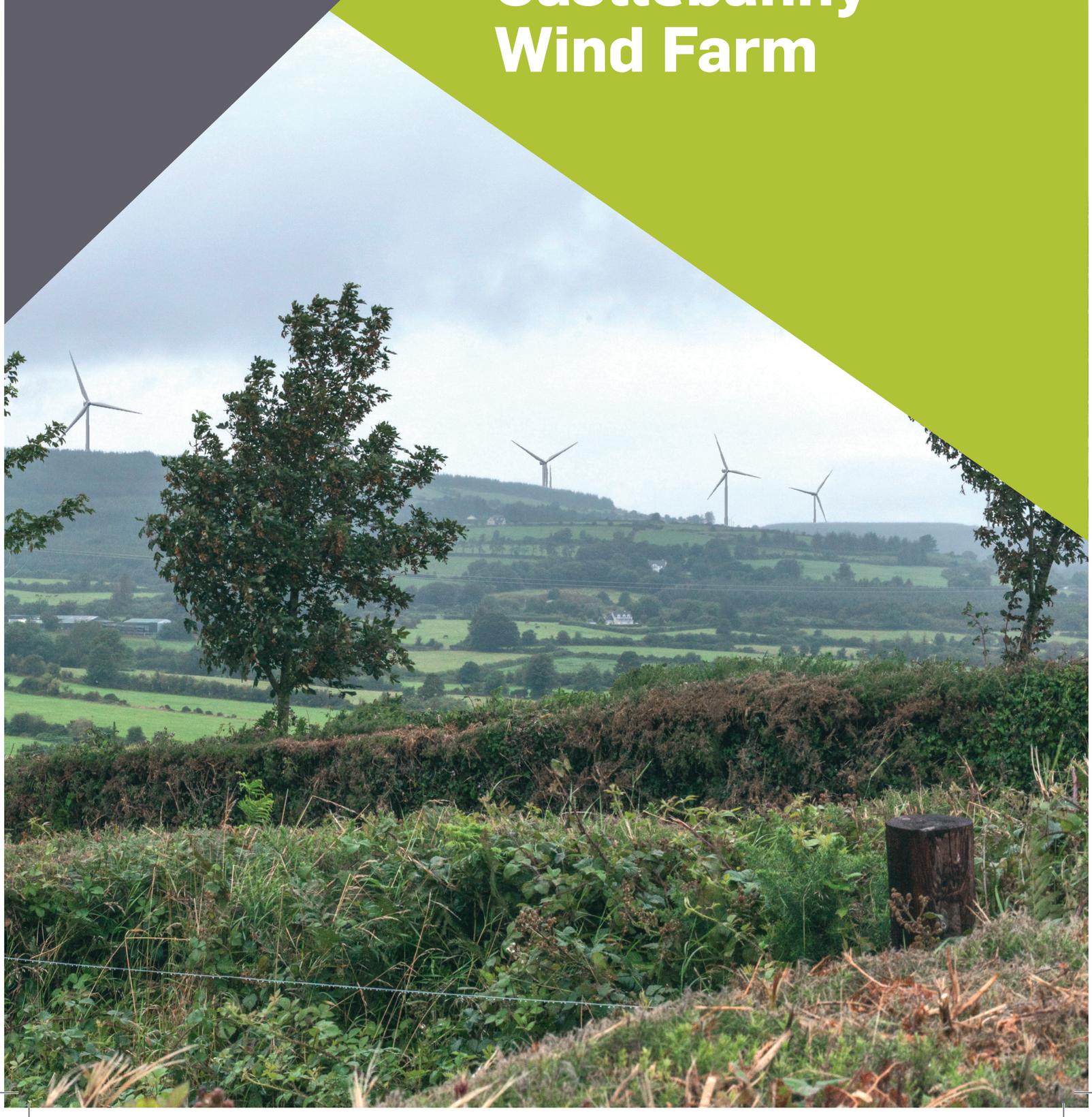
ART

ALTERNATIVE RENEWABLE TECHNOLOGIES

GENERATION LTD

Castlebanny Wind Farm



Dear Homeowner,

First and foremost, we hope this finds you safe and well in these challenging times, and adjusting as best as possible to new ways of going about daily life.

As you may be aware, Coillte's Renewable Energy business in partnership with ART Generation has been actively exploring a wind farm development opportunity close to Mullinavat, Co Kilkenny. The community engagement model which we use within our team has given us an opportunity to meet with a very high proportion of people residing within 2 km of the potential wind farm.

The proposed Castlebanny Wind Farm project is now at a stage where all the environmental assessment data has been gathered and collated to inform a proposed layout. This brochure sets out a detailed overview of all aspects of the proposed Castlebanny Wind Farm project and we look forward to addressing any queries that may arise. We propose to address any queries by phone call or in person subject to being able to respect the Government Covid-19 guidelines in place at the time.

We are planning a further event to share information on the project in the near future. The nature of this event will depend on Government advice at the time but will include an online project information platform as a minimum.

Please be assured that we will continue to make every effort to ensure that we provide you with all the information you need in order to fully understand the details of this proposed project. We are also committed to making available the necessary resources within our team to support any engagement.

Once you have had a chance to read through this brochure and should you have any areas of the project you wish to discuss further, please make contact with any of the team in the coming weeks using the contact details at the back or on the project website (www.castlebannywindfarm.ie).

Please stay safe and well in these difficult times.

Yours sincerely,

Kieran O'Malley

Kieran O'Malley
Project Manager
Coillte

Andy Fox
Community
Engagement Manager
Coillte

1. INTRODUCTION

This brochure has been prepared to:

- provide an update on the proposed Castlebanny Wind Farm project; outline a brief description of the infrastructure that is proposed
- describe the expected benefits of the proposed development and how it may positively impact local communities and initiatives
- describe the technical and environmental studies which have been completed as part of the design and environmental assessment process
- outline the steps to be taken prior, during and after the planning permission application has been submitted to the Planning Authority

Why Onshore Wind?

In May 2019, the Government declared that Ireland was in the midst of a climate and biodiversity emergency. The Environmental Protection Agency (EPA) has stated that mean annual temperatures in Ireland have risen by 0.7° Celsius (C) over the past century and are likely to rise by 1.4°C to 1.8°C by the 2050's and by more than 2°C by the end of the century due to climate change. Climate change refers to the change in climate that is attributable to human activity arising from the release of greenhouse gases in particular from the burning of fossil fuels (coal, oil, peat) for transport, electricity generation and agriculture. The Environmental Protection Agency states that future impacts associated with climate change include[1]:

- more intense storm and rainfall events
- increased likelihood and magnitude of river and coastal flooding
- water shortages in summer in the east
- adverse impacts on water quality
- changes in distribution of plant and animal species

As Ireland's largest landowner, Coillte has the capacity and with that the responsibility to contribute significantly to Ireland's efforts to combat climate change and reduce carbon emissions. Our forestry business sequesters 1.1m tonnes of carbon annually and our land asset, with its' suitability for wind farm development, puts us at the forefront of being able to deliver on the Government's Climate Action Plan (June 2019) which announced a target of 70% of Ireland's electricity from renewable sources by 2030.

This commitment will form part of the forthcoming climate change legislation for publication in the near future.

- A target of net zero economy-wide greenhouse gas (GHG) emissions by 2050 which will include:
  - » A target for the renewable share of electricity generation of 70% by 2030. Provision for five-yearly carbon budgets, consistent with the emissions reduction pathway to 2030 and 2050

More specifically, the Climate Action Plan 2019 states that:

'To meet the required level of emissions reduction, by 2030 we will:

Increase electricity generated from renewable sources to 70%, indicatively comprised of:

- *at least 3.5 GW of offshore renewable energy*
- *up to 1.5 GW of grid-scale solar energy*
- *up to 8.2 GW total of increased onshore wind capacity'*

The current capacity of installed onshore wind energy in Ireland is approximately 4,200 MW. The *'Project Ireland 2040: National Development Plan 2018 – 2027'* outlines the need for an additional 3,000-4,500 MW of renewable energy as an investment priority.

Wind energy makes sense for Ireland for many reasons. It is a clean fuel source which does not pollute the air like power plants that rely on combustion of fossil fuels, such as coal or natural gas. Wind turbines do not produce atmospheric emissions that cause acid rain or greenhouse gasses. Wind energy is a domestic natural resource, available in abundance in Ireland and the resource is free. Domestic production of electricity from wind reduces reliance on imports of fossil fuels. Recent technology developments in onshore wind energy have resulted in significant improvements in the cost of energy and wind energy is the most economic form of renewable energy generation. Coillte's land asset is ideally suited to wind farm development due to the predominance of rural landholdings in areas of high wind resource and low environmental sensitivity. As a wind farm occupies such a small proportion of a site area, many other land uses can co-exist such as Coillte's forestry business, recreation offering and biodiversity management.

The further development of renewable energy sources is a vital component of Ireland's strategy to tackle the challenges of combating climate change and ensuring a secure supply of our future energy needs. The proposed project is being brought forward in response to these challenges.

1 https://www.epa.ie/climate/communicatingclimatescience/whatisclimatechange/whatimpactwillclimatechangehaveforireland/

Community Engagement

A Community Liaison Officer was appointed to the project in Q3 2019 and extensive community engagement has been undertaken with neighbours living close to the proposed site since then. This is part of Coillte's engagement approach for those who are most impacted by the proposed development and living within 2km of a proposed turbine. The Project Manager, Community Liaison Officers and ART Generation personnel have undertaken a programme of work to ensure that accurate information is shared and that stakeholders have a forum where queries can be posed and addressed.

The format of this programme includes printed information, house visits, a website and discussions with community and recreation groups, businesses, schools, etc. This brochure forms part of this process and all the information within this brochure is intended to provide an understanding of the proposed wind farm, its design and its environmental credentials. There will be a further engagement event, the format of which will be dictated by the health and safety recommendations in place at the time associated with Covid-19.

The Team

Coillte Renewable Energy is part of the Land Solutions division within Coillte which is responsible for generating recurring revenue by partnering, developing and adding value where Coillte-owned lands are suited to activity other than forestry, such as renewable energy. Coillte has been involved in the development of 4 operating wind farms including Raheenleagh (Wicklow), Sliabh Bawn (Roscommon), Cloosh (Galway) and Castlepook (Cork) which have a combined total capacity of over 300 megawatts (MW).

ART Generation is a Kilkenny based wind farm development company with extensive knowledge and experience in the development, construction and operation of wind farm projects throughout Ireland. It was the original promotor of Ballymartin and Smithstown wind farms in South Kilkenny. It most recently developed three wind farms in Tullaroan/Kilmanagh (Kilkenny) and Ballysloe (Tipperary).

The company has a portfolio of operational and pipeline projects throughout Ireland.

The team involved in this project includes a Project Manager, Community Liaison Officer and ART Generation as well as the support of a number of specialists in the areas of Grid development, Community Engagement, Planning and Policy and GIS and Wind Resource Management.

Tobin Consulting Engineers are leading a multidisciplinary team in carrying out studies, design and preparation of the planning application and Environmental Impact Assessment Report (EIAR) on behalf of Coillte and ART Generation.

Tobin Consulting Engineers has wide ranging experience in all aspects of the feasibility assessment, environmental impact assessment, planning, design and construction of wind farms and other energy related projects.

About The Site

The proposed Castlebanny Wind Farm is located in south-east Kilkenny approximately 2.2 km south-east of Ballyhale, 4.5 km north-east of Mullinavat and 5.8 km south-west of Inistioge. The total land parcel is approximately 1400 ha and the site is predominantly covered in active Coniferous forestry plantation areas on both Coillte and local landowners properties. The Arrigle River runs south-north to the east of the site area and the Derrylacky River runs to the west of the site. The topography of the site can generally be described as gently sloping, rising from c.130 OD in the east and 120 OD in the west to a high point of 250 OD in the north and 265 OD in the south. The site is bounded by the R704 to the south and local roads to the east, north and west while the South Leinster Way traverses the southern part of the site. The Arrigle River (which forms part of the River Barrow And River Nore Special Area of Conservation) runs south-north near the eastern boundary of the site. Several tributaries of the Arrigle and the Derrylacky River encroach on the periphery of the site.

In general terms, the area surrounding the site can be described as rural with dispersed settlement type. There are three commissioned wind farms located south/southeast of the site namely; Ballymartin Windfarm, Smithstown Windfarm and Rahora Windfarm.

Photomontage from local road at New Chapel, west of proposed Castlebanny Wind Farm.

Why This Site?

Identifying a site suitable for a wind farm encompasses several considerations. Suitability of the Castlebanny site can be attributed to the following characteristics:

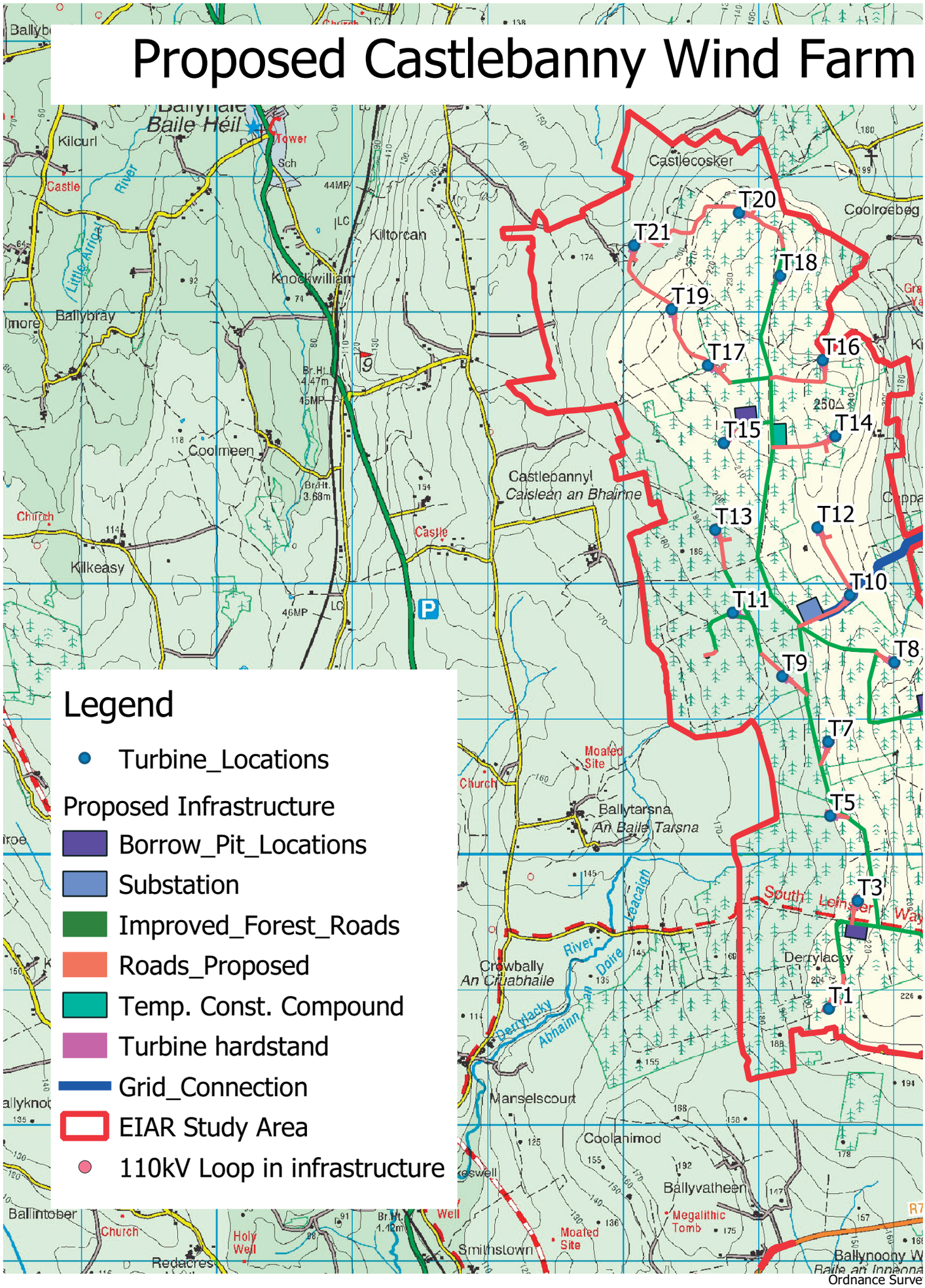
- the proposed wind farm is not located within a Natura 2000 site (i.e. Special Area of Conservation (SAC) or a Special Protection Area (SPA)) nor a Natural Heritage Area (NHA)
- the site is in close proximity to an existing 110 kV line ensuring minimal environmental impact and economic grid connection
- initial landscape and visual impact assessment indicates that proposed location is suitable for a project of scale
- the site has good annual average wind speeds;
- a significant setback from houses can be achieved, with the closest dwellings at a 750m setback from the turbines
- there is a network of existing forestry roads within the site that can be utilised

2. PROPOSED DEVELOPMENT

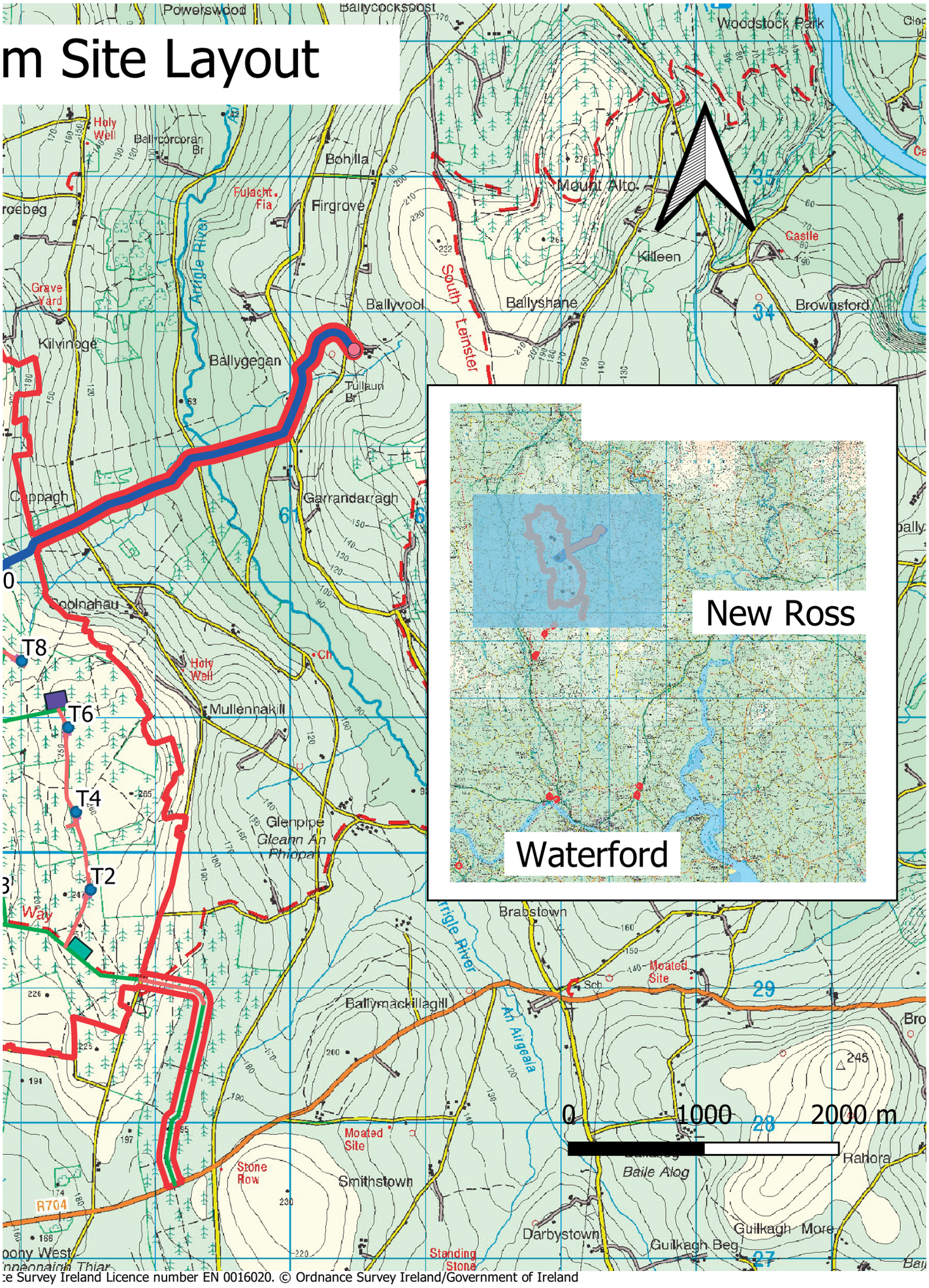
Currently, the proposed wind farm includes the following:

- 21 wind turbines up to a maximum tip height of 185 metres with all associated foundations and hardstanding areas
- onsite 110kV substation with loop in 4 km underground grid connection to the existing 110kV overhead line in the townland of Ballyvool
- upgrading of existing site access tracks and construction of new site access tracks as required
- 3 onsite borrow pits to source stone material on-site
- 1 onsite met masts up to a height of 100m
- provision of amenity facilities to allow and encourage public access to the site for walking and cycling on site access tracks
- 2 temporary construction compounds, one of which will be used as a permanent public car park for accessing the proposed amenity facilities after the construction phase
- all underground cabling required to connect the on-site substation to each wind turbine
- tree felling and all associated site development works
- temporary road upgrade works at a number of locations to allow delivery of oversize loads to the wind farm

Proposed Castlebanny Wind Farm



m Site Layout



3. COMMUNITY BENEFIT AND INVESTMENT PROPOSAL

How will this project benefit the local community?

Castlebanny Wind Farm has the potential to bring significant positive benefits to local communities. The project will support sustainable local employment, it will contribute annual rates to the local authority and it will provide opportunity for local community investment in the project in line with the new Renewable Energy Support Scheme (RESS).

As with all wind farm projects which Coillte develop, a community benefit fund will be put in place to provide direct funding to those areas surrounding the project.

What will the community benefit fund look like?

Two important areas of Government policy are in development which will have a bearing on the establishment of future community benefit funds, the updated Wind Energy Guidelines and the Renewable Energy Support Scheme (RESS). Both sets of policy are expected to be finalised in 2020 which will provide the Government requirements on future community benefit funds for renewable energy projects. We will fully take into account these two important policies as we present the proposed project's approach to community benefit.

It is anticipated that for each megawatt hour (MWh) of electricity produced by the wind farm, the project will contribute €2 into a community fund for the RESS period i.e. first 15 years of operation. If this commitment is improved upon in upcoming Government Policy we will adjust accordingly.

If this project is constructed as currently designed, this would mean that in excess of € 500,000 per annum will be available in the local area for community funding for the RESS period consistent with Government policy.

The above figure is indicative only and will be dependent on the generation capacity of the wind farm which is influenced by a number of factors including:

1. Number and type of wind turbines eventually permitted
2. Capacity and availability of energy production of the delivered turbines
3. Quantity of wind (dependent on wind conditions in any year)

How the fund will be used and administered?

The Community Benefit Fund belongs to the local communities surrounding the proposed wind farm. The premise of the fund is that it should be used to bring about significant, positive change in the local area.

Following the submission of the planning application, there will be workshops organised to facilitate consideration of the priorities for the local fund. The output from these workshops and any other proposals from the community will inform the structure of the Community Benefit Fund.

Near Neighbour Scheme

It is acknowledged that the people living closest to a wind farm are the most important stakeholders and a proportion of the Community Benefit Fund will be set aside as a dedicated "Near Neighbour Fund". The exact structure of this will be confirmed as part of the development of the overall Community Benefit Fund but would typically provide support of varying degrees for properties up to 2 km from turbines. This is supported by the requirements set out in the first RESS. These are set out in Section 7.2.6 of the RESS1 Terms and Conditions

https://www.dccae.gov.ie/documents/RESS_1_Terms_and_Conditions.pdf as shown below – this could be adjusted in future RESS schemes that may relate to this project.

'The Generator or its agent will administer the funds contained in the Community Benefit Fund and shall distribute such funds for the duration of the relevant RESS 1 Project's RESS 1 Support as follows on an annual basis:

(a) in respect of Onshore Wind RESS 1 Projects, a minimum of €1,000 shall be paid to each household located within a distance of a 1 kilometre radius from the RESS 1 Project;

(b) 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;

(c) a maximum of 10% of the funds may be spent on administration. This is to ensure successful outcomes and good governance of the Community Benefit Fund. The Generator may supplement this spend on administration from its own funds should it be deemed necessary to do so; and

(d) 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 from the RESS 1 Project but within a distance of 2 kilometres from such RESS 1 Project.'

What is meant by Community Investment?

The proposed RESS sets out that future renewable energy project proposals enable the possibility for local communities to invest in projects in a meaningful way as a means to directly gain from the financial dividends that a project can provide should it be consented, built and operated. In response to this, Coillte have been working hard with external agencies to develop workable models of Community Investment. As with the benefit fund, we aim to take this work into the community during 2021, to continue to explore this exciting possibility and see how best to embed its design within the community.

Recreation Plan

A recreation plan is being prepared for the phased development of a recreational amenity at the project location. This will be developed as follows:

- **Phase 1** – this will include access point, basic facilities, signage for looped walks/cycles. This will be included with the planning application for the proposed wind farm
- **Phase 2** – this will consider development of the facilities included in Phase 1 based on further discussions with the community to provide additional facilities and access to respond to community needs. The Phase 1 and Phase 2 developments would be installed as part of the wind farm construction
- **Phase 3** – this considers how to link the project site with other recreational facilities in the wider area to create a cohesive recreation attraction to the wider area. This would be developed following construction of the wind farm and funded from the Community Benefit Fund

The overall theme for the recreation plan is a safe place for visitors to exercise and spend quality time together. The absence of traffic, gentle slopes and road layouts provide the perfect supporting environment to achieve this aim.

Additional Benefits

Additional benefits arising from the construction and operation of the proposed development include:

- up to 100 people directly employed at peak construction. 2-3 long term, high quality technical jobs in operation and maintenance
- substantial annual rates paid to Kilkenny County Council. Rates paid to Kilkenny County Council for the proposed development will have a positive impact on local infrastructure and amenities such as roads, public lighting, street cleaning, libraries, fire services and public amenities. Under current council rate guidelines, estimated annual rates of between € 1.8 and € 2.3 million would be collected by Kilkenny County Council
- indirect employment created through supply of a wide range of products and services

Photomontage from South Leinster Way, east of proposed Castlebanny Wind Farm

4. SITE DESIGN PROCESS

The design process for the proposed wind farm starts with a review of existing information to avoid or minimize potential impacts. This includes limiting the angle of slope of the ground where development can occur, including a setback distance from watercourses and residences, as well as a setback distance from any nearby European designated habitat sites.

The following design parameters were applied;

- avoid steep areas where possible – steep ground slope
- avoid watercourses where possible – 50 m buffer
- avoid dwellings – 750 m buffer
- avoid biodiversity rich or sensitive areas
- avoid telecommunications links
- optimise design for visual impact

A turbine layout was then developed to take account of all the constraints mentioned above and their associated buffer zones and the separation distance required between the turbines. The location and alignment of the associated infrastructure, such as roads, crane hard stands and substation, was then developed following confirmation of the proposed turbine layout. In addition to the above, the locations of the proposed wind turbines and all other proposed infrastructure locations have been informed by rigorous site investigations and assessments carried out over a two-year period including:

- Ecological Surveys
- Ornithological Surveys
- Geotechnical, Hydrological and Geological Site Investigations
- Shadow Flicker Modelling
- Noise Modelling
- Archaeological Surveys
- Landscape and Visual Assessment
- Wind Resource Modelling

The constraints map has been continuously updated throughout the development design process based on the findings of each of the site investigations and assessments that have been completed. The constraints map will be available to view on the project website.

Scoping and Consultation

Development projects such as wind farms require a detailed Environmental Impact Assessment Report (EIAR). In order to ensure that the EIA process was appropriate to the project and locality, an information document was prepared and circulated to a list of statutory consultees to ensure that the EIAR was addressing all relevant topics.

5. THE PLANNING PROCESS

Environmental Impact Assessment Report

The EIAR will focus on the areas outlined here and will accompany the planning permission application.

Tobin Consulting Engineers are compiling the EIAR with the input of a number of other specialist consultants.

Chapter 1	**Introduction**
Chapter 2	**Description of the Proposed Development**
Chapter 3	**Civil Engineering**
Chapter 4	**Alternatives**
Chapter 5	**Population and Human Health**
Chapter 6	**Biodiversity**
Chapter 7	**Ornithology**
Chapter 8	**Water**
Chapter 9	**Land and Soil**
Chapter 10	**Noise and Vibration**
Chapter 11	**Shadow Flicker**
Chapter 12	**Landscape**
Chapter 13	**Cultural Heritage**
Chapter 14	**Air and Climate**
Chapter 15	**Material Assets**
Chapter 16	**Interaction of the Foregoing**
Chapter 17	**Schedule of Environmental Mitigation**

Planning Application

An application for planning permission for the proposed Castlebanny Wind Farm will likely be submitted directly to An Bórd Pleanála as the project is of sufficient scale to be deemed Strategic Infrastructure Development (SID). During the project design and environmental assessment, consultation was carried out with An Bórd Pleanála, and the local planning authority, Kilkenny County Council, to discuss the project. The planning application will be supported by an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS). A separate project website has been created and will be used, as required by An Bórd Pleanála, to present the full application and all the supporting documents and drawings. This will allow public access to documentation for review.

6. POPULATION AND HUMAN HEALTH

The assessment examines the potential impacts of the project (both beneficial and adverse) on the local and regional community. The key issues examined include population and settlement, employment and economic activity, land-use, residential amenity, community facilities and services, tourism, and health and safety.

Regarding the proposed wind farm development, the potential significant wellbeing and nuisance effects of the proposed scheme on the local human environment have been identified as follows:

- dust emissions from construction activities
- noise emissions during construction activities and operation
- public safety
- visual impacts during operation
- shadow flicker during operation
- traffic nuisance during construction
- tourism and recreational impacts
- interference with telecommunication signals during operation

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

7. BIODIVERSITY

The site principally consists of conifer plantation and improved pasture. There are some areas of unimproved and semi-improved grassland, small wetlands and patches of scrub. There are a few small pockets of remnant blanket bog and wet heath. Small streams flow from the site towards the Arrigle River to the east, a tributary of the River Nore, while the western part of the site drains towards the Black Water, which flows south to the River Suir. Watercourses in and near the site are mostly of High or Good Status, according to EPA water quality data. The site is used by badger, pine marten, fallow deer, common frog and six species of bats, including Leisler's bat. The birds on site are typical of conifer plantation and improved pasture habitats and include Sparrowhawk, Kestrel and Woodcock. The rare butterflies dingy skipper and small heath are also present. The closest nature conservation area to the site is the River Barrow and River Nore Special Area of Conservation (SAC), which includes the Arrigle River, at over 1,500 m distance from most of the proposed development with the exception of the grid connection which will cross the Arrigle River.

8. WATER

On a regional scale, the site at Castlebanny is located across the Suir and Nore Catchments. The proposed wind farm is located between the Arrigle River to the east of the site which feeds into the Nore River. Derrylacky River to the west of the wind farm feeds into the Blackwater River. All rivers ultimately discharge to the River Barrow. The water quality of the local rivers is typically good.

Groundwater at the site can be classed as highly sensitive due to the presence of some shallow subsoils and areas of exposed bedrock. The bedrock is classified as a poor aquifer therefore the risk of contamination travelling long distances is unlikely i.e. less than 0.5 km. No public water schemes or Group Water Schemes have been identified within 2 km of the site.

The River Barrow and River Nore SAC is the nearest designated site located hydrologically downgradient of the site, but the proposed development will be designed to ensure there are no potential significant impacts to any designated sites.

Drainage management will be employed to control drainage water within the site during construction, ensuring that surface runoff from the developed areas of the site will continue to be of good quality and no flood risk to the downgradient setting. Impacts on water during the construction phase of the wind farm will be imperceptible to none. A surface water monitoring programme will be put in place during the construction phase of the wind farm site. Based on proposed mitigation measures, there is no potential for significant impacts on the hydrology and groundwater as a result of the proposed wind farm development.

9. LAND AND SOILS

The geology of the site is made up of either till i.e. clay or a thin layer of subsoil which in turn are underlain by weathered and solid bedrock. Detailed site investigation works, including field mapping of exposures, shallow subsoil drilling and trial pit excavations were undertaken to assess the geology of the site for construction purposes.

Construction of the wind farm infrastructure will require the removal of subsoils and possibly rock to create solid foundations.

Excavation of bedrock from proposed on-site borrow pits and suitable off-site aggregate sources will provide appropriate construction material for access roads, turbine bases and general hard-standing foundations. Removal and reuse of subsoils and bedrock does not represent a significant impact on the geology of the site.

No significant impacts or cumulative impacts on the soil and geological environment are anticipated as a result of the proposed wind farm and its grid connection route options.

10. AIR AND CLIMATE

This chapter describes the likely significant impacts the construction and operation of the proposed wind farm development will have on air quality and climate.

While there may be an imperceptible temporary negative impact to local air quality in the immediate vicinity of the development arising from vehicle exhausts and dust generation during the construction phase, the overriding long term impact will be positive.

Once operational, electricity generated by the wind farm will displace electricity that would otherwise have been generated by fossil fuel power stations, therefore reducing CO_2 emissions by between 110,000 and 150,000 tonnes CO_2 per annum, improving air quality and contributing to the fight against climate change.

11. NOISE

The main sources of noise from a wind turbine include aerodynamic noise (rotating blades in the air) and mechanical noise (gearbox and generator). Noise only occurs above the 'cut-in' wind speed and below the 'cut-out' wind speed. The typical 'cut in' wind speed of a modern turbine is 3 meters per second (m/s) and the 'cut-out' wind speed is approximately 25 to 30 m/s.

Construction noise will occur during excavation and earth moving, laying of roads and hard standings, transportation of materials and erection of the wind turbines. The construction phase will be phased and temporary.

Noise and vibration assessments were undertaken for the operational, the construction and decommission phases of the proposed development. The cumulative impact with other wind farms was also considered.

Vibration, low frequency noise and infrasound are also addressed in the study.

To inform the noise impact assessment, baseline noise monitoring of the existing noise environment was carried out over a 4–6 week period in early Autumn 2019.

Following the establishment of the existing noise levels prior to development, appropriate noise level limits were then determined in line with Government policy and guidance. The noise limits seek to strike a balance between the noise restrictions placed on a wind farm, the protection of amenity and the national and global benefits of renewable energy development. The predicted noise emissions from the wind farm are then compared against these limits. The predicted wind farm noise emissions must not exceed the appropriate noise limit.

12. LANDSCAPE AND VISUAL

The assessment of Landscape and Visual Effects assesses the effects of the development on the landscape as a resource and on the fabric and character of the landscape. Assessment of visual effects relates to the change in views and visual amenity experienced by groups of people.

The proposed development is located in an area categorised as a dynamic landscape, in which change is anticipated. County Kilkenny's Landscape Character Areas have been mapped for the county, and the proposed development is located near the border of the "South-Western Hills" and "South-Eastern Hills" Areas.

The Landscape Appraisal of Co. Kilkenny has noted that "the south-western and south-eastern uplands were considered to have development potential". It notes in particular that "the hilltops and upland areas were generally perceived as most suitable for forestry plantations and the undulating nature of these units was considered to have the capacity to absorb wind farm, powerlines and infrastructure developments".

13. CULTURAL HERITAGE

The South Eastern Uplands of Kilkenny is a landscape with a rich cultural heritage that includes prehistoric settlements and monuments and medieval religious and secular sites. The area to the south of the proposed Castlebanny Wind Farm has a particular concentration of prehistoric features including megalithic tombs, standing stones and burned mounds (fulachtaí fia).

Two archaeological sites on the Record of Monuments and Places (RMP) are located within the boundary of the proposed wind farm: a ringfort or rath (KK032-029) in Cappagh townland in the north of the area and a structure (KK036-040) in the east of the area, in Coolnahau townland. The structure is described as a 'large, overhanging rock with space under walled around to make a rectangular room', and it is traditionally associated with St Moling or St Mulling, a 7th-century monk and bishop who is said to have dwelt here as a hermit. Beside the eastern end of the planned grid connection cable route is another rath, in Ballyvool townland (KK032-033), and one of the turbine delivery route works areas is next to the site of Ballynoony Castle (KK040-003), which appears as an earthwork on historic maps.

Sites of architectural significance in the surroundings of the proposed wind farm include those listed on the Kilkenny County Council Record of Protected Structures (RPS). Within the proposed wind farm area there are no RPS sites: the nearest are a national school and railway station, more than 1km distant.

As a result of the archaeological and cultural heritage assessment, mitigation measures are recommended to ensure the identification, protection and recording of any sites that may be impacted by the proposed wind farm. Archaeological testing and monitoring will be proposed to identify any previously unrecorded sites and appropriate management measures will be developed for both recorded and unrecorded cultural heritage sites.

14. MATERIAL ASSETS

An Aviation study has been completed to investigate if there would be any issue with Waterford airport flights and calibration checks.

A traffic study has also been carried out to consider the additional traffic associated with the construction of the wind farm and the delivery of the turbine components. Separately a delivery route assessment has been carried out which has considered turbine delivery from Belview Port in Co. Kilkenny.

A scoping exercise was carried out with telecommunications providers, and the proposed wind farm has been designed to avoid any significant impacts to telecommunications links.

The proposed grid connection will consist of underground cables which will connect to an existing overhead line. See proposed grid route on Proposed Castlebanny Wind Farm Site Layout figure.

15. ENVIRONMENTAL BENEFITS

The proposed development could generate up to approximately 120 MW per hour of renewable, clean electricity. Over the lifetime of the project, between 3 and 4.5 million tonnes of carbon dioxide are expected to be offset compared to traditional electricity generation. 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 a relatively short period of operation. These details are provided in the EIAR.

Wind farms emit no toxic substances or air pollutants, unlike coal or gas power stations.

The energy generated by the proposed development, will offset associated emission of greenhouse gases from electricity-generating stations dependent on fossil fuels, thereby having a positive effect on climate. It will have the capacity to provide enough electricity to power over 70,000 homes in County Kilkenny. The EIAR provides further information on this.

The proposed wind farm will take up only a small portion of the total site area; the existing land-use of mainly commercial forestry with some agriculture will continue in conjunction with the proposed development.

16. NEXT STEPS

Engagement with local residents and other consultees will be ongoing. There will be a public engagement event held prior to submitting the planning application – the nature of this event will be determined by government advice and recommended practices in place at the time associated with Covid-19 restrictions.

Once the EIAR is complete, Coillte and ART Generation will be ready to submit a planning application to An Bórd Pleanála for the proposed Castlebanny Wind Farm. It is anticipated that the planning application will be submitted in the latter part of 2020.

The planning application will include the following;

- Cover Letter to An Bord Pleanála
- Cover Letter to Local Authorities
- Planning Application Form
- Letter(s) of Consent
- Site Notice
- Newspaper Notices
- Pre-Application Consultation
- Planning drawings and drawing schedule
- EIA Portal Confirmation Notice
- Natura Impact Statement

Notification of the intention to submit an application supported by an EIAR will also be sent to the Department of Housing, Planning and Local Government's EIAR portal and the confirmation will be included with the planning pack.

All documents and drawings will be uploaded to a project specific website which will be dedicated to this planning application.

17. MEET THE TEAM

Richard Walshe is the owner of ART Generation. A native of Co Kilkeny, he has been involved in the development and operation of wind energy since 2002. Richard brings extensive experience and knowledge to the project alongside his deep understanding of the local area.

Kieran O'Malley is Coillte's Project Manager for the proposed Castlebanny Wind Farm development. Kieran brings extensive experience having worked as a civil and environmental engineer and renewable energy project developer for over 24 years.

Shane Lowry is our Community Liaison Officer. Shane enjoys working with people and brings many years of experience across different business sectors. Shane is your local contact for the proposed project at Castlebanny.

Andy Fox is Coillte's Community Engagement Manager. Andy has spent the past 18 years working hand in hand with communities to drive towards sustainable local development. Originally from Kenya and the UK, Andy now lives in Co. Wicklow.

18. CONTACT US

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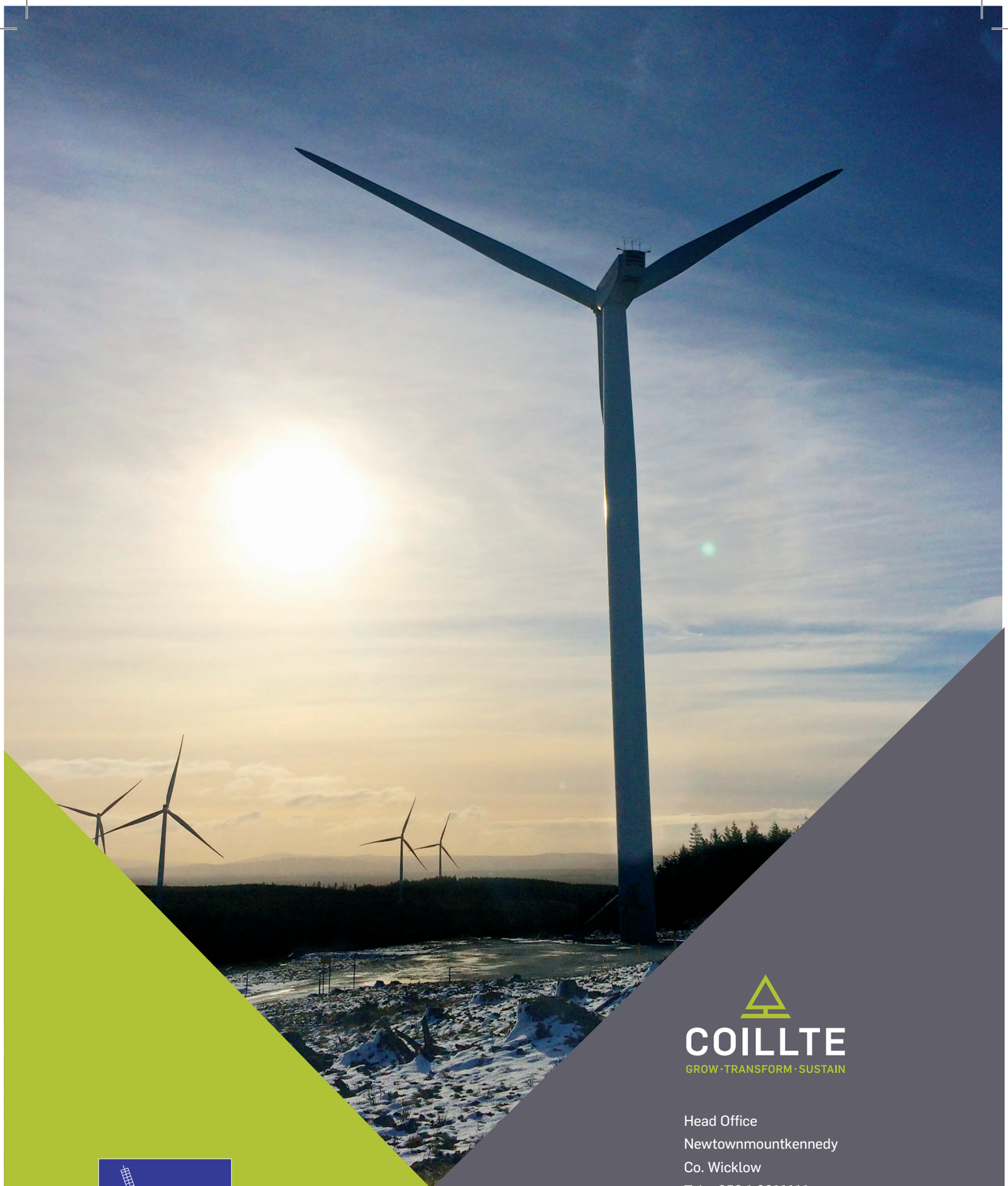
Website: **www.castlebannywindfarm.ie**

* Note that email, website comment or phone contact is preferable at this time as there is limited access to the Coillte offices



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In edition circulated on 22nd October 2020.

Planning application for Castlebanny Wind Farm Set to be Finalised

Coillte Renewable Energy and ART Generation are uniquely positioned to make a significant contribution to the decarbonisation of Ireland's economy as it finalises a planning application for the proposed Castlebanny Wind Farm development.

Coillte, the state-owned commercial forestry company, and local Kilkenny based wind farm development company ART Generation, are preparing a planning application to submit to An Bórd Pleánala for the proposed Castlebanny Wind Farm in the coming weeks.

The application follows an extensive year-long community engagement programme in parallel with the design and EIA process, which has actively sought input from the local community, and particularly those living closest to the proposed wind farm site.

The project's aim is to develop a renewable energy project responsibly, in a way that will bring benefit locally, regionally and nationally. It is uniquely positioned to make a significant contribution to the decarbonisation of Ireland's economy and to achieving the goals outlined in Ireland's Climate Action Plan. The proposed Castlebanny Wind Farm project forms part of that contribution to helping the state and Kilkenny County meet its targets and play its role in promoting and sustaining a cleaner, secure, healthier environment for our children and future generations.

The proposed development is comprised of:

- Up to 21 wind turbines with a proposed hub height of approximately 110 metres and an overall blade tip height of up to 185 metres;
- Onsite 110kV substation with a 4 km underground grid connection to the existing 110kV overhead line in the townland of Ballyvool;
- 3 onsite borrow pits to source stone material on-site;
- 1 onsite met mast up to a height of 100m;
- Provision of amenity facilities to allow and encourage public access to the site for walking and cycling on site access tracks;
- 2 temporary construction compounds, one of which will be used as a permanent public car park for accessing the proposed amenity facilities after the construction phase;

The project team has adopted a best-in-class and conservative approach to determining a proposed project layout for consideration in the planning submission. The team has also been working with local stakeholders to develop a recreation plan for the site and to create links with nearby amenity and recreation areas. Following the application's submission to An Bórd Pleánala, the team plan to maintain a strong and constructive working relationship with the local community exploring this further.

Should the project receive planning permission and enter construction, there will be a Community Benefit Fund put in place for the project estimated at approximately €500,000 per annum. This will be divided into two components, a Near Neighbour Fund and a Wider Community Fund to provide direct project funding to those areas surrounding the project. The project will also actively explore the potential for direct community investment for those seeking to financially invest and participate in the wind farm when clear guidance is provided by DCCAE. During the construction phase, up to 100 people will be directly employed by the project drawing upon service providers based locally and regionally.

This project has the potential to generate approximately 120 megawatts of clean, renewable electricity capable of powering approximately 70,000 Irish homes and would make a substantial contribution towards Ireland's stated goal of producing 70% of its electricity from renewable sources by 2030. This represents CO2 savings equivalent to taking approximately 50,000 cars off the road.

As the normal project open event is not possible under the current Covid-19 restrictions, the team has developed an online presentation of the project for members of the public to view. This presentation can be accessed from the project website **(www.castlebannywindfarm.ie)**.

The full Planning Application will be available to view online on a dedicated website **(www.castlebannyplanning.ie)** once the final submission has been made to An Bórd Pleánala.