



APPENDIX 2-2

COMMUNITY ENGAGEMENT REPORT

Community Report

Cahermurphy Two Wind Farm,

Co Clare

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1 INTRODUCTION

MCRE WINDFARM LIMITED (“MCRE”) is seeking planning permission from Clare County Council to construct and operate a commercially viable wind farm project on lands at Cahermurphy and surrounding townlands, near Kilmihil in Co. Clare.

From the project outset, MCRE and its project partner Coillte consulted with the local community and commenced this engagement from an early stage of the project design and environmental assessment.

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

2 BACKGROUND

MCRE has been involved in the successful development of the Cahermurphy 1 windfarm since 2013 and though the process of planning and developing of the Cahermurphy 1 project it has developed many relationships with the local families in this general area. The Genesis of the current project evolved through these relationships following the successful planning and development of the Cahermurphy 1 project when local farm families approached MCRE with a view to building on the success of the original project. Through the model of involvement of local farm families as shareholders the original Cahermurphy project attracted no objections to its application for planning permission. Coillte our project partners also has a long history of working with communities and their experience around the country has generated an inherent understanding of the communities in which they operate. Like the 14 farm families that have committed lands to this application, Coillte also has a long standing presence in this area stretching back to the 1960's. MCRE and Coillte aspire to work with the communities surrounding the site and wish to build projects that are commercially viable, good for our neighbours, and that contribute to the fulfilment of County Clare's stated Renewable Energy Targets along with Local, national and global Climate Change objectives. In keeping with the success and relationships that we have enjoyed to date in this part of west Clare we have made a genuine effort to respect the views expressed to us in the planning and preparation of this application.

Building on the success enjoyed by MCRE in the Cahermurphy area and Coillte's experience having developed four wind farms in Ireland over the past decade from which it 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 in Coillte undertook a review of the Coillte Community Engagement and embarked on the design of a radically enhanced approach with the support of AstonEco Management.

The key elements of this new 'Fair Play' approach are:

- Detailed and systematic engagement with close neighbours to the project from a very early stage of project design, where possible

- Open, transparent dialogue and communications.
- Creating opportunities for open, two way dialogue on key issues.
- Involvement of the local community in the project design process.
- Empowering local communities to be part of project decisions that affect them.
- 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 site as these people will be closest to the development. In the past, engagement has commenced when the project is almost fully designed and being prepared for planning submission.

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 the involvement of people in decisions that affect them, 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 these projects. Nationwide, local sentiment against wind development has grown, but this trend can be reversed. It is through two-way dialogue that MCRE & Coillte Renewable Energy can responsibly partner with local communities.
- Both MCRE & Coillte Renewable Energy 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, MCRE & Coillte Renewable Energy are committed to meaningful consultation, which brings about constructive local dialogue, as well as mutual trust and understanding.

3 PROJECT RESOURCES

In order to implement this approach MCRE &Coillte have resourced this project with a number of dedicated staff from the outset. The following key personnel have been involved in Community Engagement:

Seamus Howard, a native of Clare, is the MCRE project manager who has overseen the successful construction and commissioning of the Cahermurphy 1 windfarm. A Chartered Civil Engineer, Seamus has extensive experience in the construction and development of complex construction projects in the Energy, Pharmaceutical, Commercial and Residential sectors

Ger Hynes, a native of Clare, is the Coillte Project Manager. A qualified Civil Engineer, Ger has worked for Coillte for thirteen years covering projects in both forest roads design and construction, as well as wind projects throughout the full process from concept design, through planning and onto construction.

Padraig Howard, also a native of Clare is a director and CEO of MCRE and has been centrally involved in the successful planning and development of the Cahermurphy 1 windfarm having previously overseen the successfully planning of the Slievecallan project.

Eoin O Sullivan is our consultant, MKO's Project Manager. Eoin O'Sullivan is employed as a Senior Environmental Consultant with MKO. Eoin has twelve years' experience in the assessment of a wide range of energy and infrastructure related projects and working in the fields of environmental and human health risk assessment, waste management, waste policy and permitting. Eoin has wide experience in the project management of large scale infrastructural projects and brownfield developments. Eoin holds an MSc in Environmental Engineering and is a Chartered Member of the Chartered Institute of Water and Environmental Management (CWEM) and Chartered Environmentalist (CEnv) with the Society of Environment.

A major focus of the engagement approach has been to make the technical design team more accessible to local people if requested. At various stages of the project the following specialists from MKO and their sub-contractors together with MCRE & Coillte have been available to engage with local individuals and groups on topics including the following;

- Noise
- Visuals
- Ecology & Biodiversity, Birds
- Archaeology & Cultural Heritage
- Engineering layout & design
- Statutory & non-statutory consultation, including circulation of the scoping report and invitation for feedback, the proposed consultee list which was amended to add some tourism groups suggested by our neighbours. Feedback on all responses received together with preplanning meeting feedback was given at the larger group meetings.

4 SUMMARY OF COMMUNITY ENGAGEMENT CARRIED OUT

Engagement commenced in March 2018 with the Local farm families who wished to assess their lands for inclusion in studies for the extension of the Cahermurphy 1 windfarm. Padraig Howard commenced this engagement building on relationships, built up over the preceding 5 years in the successful planning of the Cahermurphy 1 project. This gave an ideal platform to lead the engagement the near neighbours.

As outlined above, MCRE & 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 have the highest potential to be impacted by the development. In commencing the engagement we needed to identify the 2 km zone to commence within. This was achieved through a twofold exercise;

- a) Firstly for the surrounding area, identification of all dwellings, lived in, vacant and with the potential to be occupied, mapping of all and establishment of a 700m buffer in which potential turbines would not be sited;
- b) Followed with the site itself, identification and collation of all known constraints within the proposed site and surrounding area, including streams, statutorily designated sites, recorded archaeological sites and monuments telecommunications links etc;
- c) The combination of both sets of buffers was then utilised to develop a non-constrained area for investigation which was potentially suitable for turbine siting. An initial turbine layout was developed of ten potential turbines.
- d) These ten locations were then buffered by 2 km to allow the 2 km area to be identified.

The individual house engagement continued from March 2018 to August 2020 as thoughts and views from our neighbours were gathered. As part of this process, a low-call number and project email address were created to aid communication. As we are in a rural community, some, particularly older people, had little access to technology, therefore all those not on the email mailing list received all information circulated in print and via one to one calls where possible. Through the dual email and hand delivery approach and one to one discussions, we were able to engage with the majority of neighbours within the immediate zone and were available for any queries. In adherence to Public Health Advice and Guidelines during the Covid 19 pandemic we adapted our engagement to avoid Public gatherings and opted instead for socially distant engagements.

4.1 PROJECT MEETINGS

A detailed Project booklet containing details of the project was produced in March 2020 and distributed to the wider community and to near neighbours from March to August 2020. The booklet contained project details, location, description of the works, explanation of the planning process, details of the studies carried out and potential impacts of the project. The booklet also contained site location details and some photo montage representations of the project. The booklet contained an invitation to the Homeowners to contact the Project team and contained a dedicated phone number and email address. The following topics were also explained in the Booklet.

- Site Design Process
- The Planning Process
- Shadow Flicker
- Biodiversity
- Birds
- Soils, Geology and Water
- Air & Climate
- Noise
- Landscape and Visual
- Cultural Heritage
- Environmental Benefits
- Material Assets

4.2 WEBSITE

The website went live in April 2020.

5 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 Cahermurphy Community Benefit Fund (CBF). Approximately 2 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. This process will 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 will look at the best ways to promote awareness about this opportunity in advance of it coming online.

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.

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.

In line with the Code of Practice for Wind Energy Development in Ireland Guidelines for Community Engagement issued by the Department of Communications, Climate action and Environment (December 2016) the project will publish an annual report of all engagement activities on the project website.

6 POTENTIAL ENDURING BENEFITS OF THIS PROJECT

Cahermurphy Two 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 will provide opportunity for local community investment in the project in line with the new Renewable Energy Support Scheme. MCRE & our project partners Coillte will develop, a community benefit fund which will be put in place for the lifetime 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 Renewable Energy Support Scheme (RESS). Both sets of policy are expected to be finalised during Q2/Q3 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 Project approach to community benefit.

MCRE 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. first 15 years of operation and €1 per MWh for the remaining lifetime of the wind farm. If this commitment is improved upon in upcoming Government Policy we will adjust accordingly.

If this project is constructed as currently designed we estimate that a total of approximately 5.6 million euro will be available in the local area for community funding over the lifetime 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 in summer 2020.

6.2 COMMUNITY INVESTMENT 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 MCRE & 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 2020, to continue to explore this exciting possibility and see how best to embed its design within the community.

7 CONCLUSION / COMMITMENT

As outlined throughout this Community Report, there has been very active engagement on the project throughout the planning design phase to date and throughout the planning and development of the Cahermurphy I windfarm. These relationships are important to MCRE and our partners Coillte and we have found that many of our neighbours are supportive of the project, while others wish that the project doesn't proceed. The 15 farm families that have lands committed to the project are in the main inter-generational farmers who have embedded roots in this community their involvement and support is a key component to the community involvement and community engagement of this particular Project.

As far back as 2004 there was an attitudinal survey carried out in the Parish of Kilmihil, in which Cahermurphy lays, to assess the perceptions and attitudes toward Windfarm developments in the area. The 'Study of community Wind energy Development in the parish of Kilmihil' was carried out by E Training international for the Clare Energy Action Network (CLEAN) in conjunction with Rural Resource development and Eiri Corca Bascin. One of the key findings of the survey was found to be local involvement and ownership greatly improved the acceptance of such developments. The Cahermurphy I project was successful in planning also having attracted no local objections again this was largely attributed to the fact that there was a strong local involvement and ownership in the Project.

The current proposed project if successful will see an additional 14 local farm families contribute part of their lands towards a significant renewable energy project that will sustain and supplement their farm income whilst also assist the farm transition to a lower carbon enterprise.

We have achieved much in terms of making the proposed project a better project for all through our engagement, however we did not progress to a point where a full stakeholder group was formed and already working on the Community Benefit Fund and Community Investment work-streams. 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 throughout the planning adjudication and decision phases as well as in the pre-construction phase should the project receive planning consent.

We would welcome a planning consent condition that requires us to adhere to this community report for the lifetime of the development, in compliance with the Code of Practice for Wind Energy Development in Ireland Guidelines for Community Engagement issued by the Department of Communications, Climate Action and Environment (December 2016) or updated revision.

Appendix A – Brochures

Cahermurphy II Wind Farm



1. INTRODUCTION

Dear Homeowner,

First and foremost, we hope this finds you safe and well in these challenging times, and adjusting as best possible to new ways of going about daily life. We would like to extend our best wishes to every one of you and would like to let you know we are here to support where possible.

As you may be aware, Mid Clare Renewables and Coillte's Renewable Energy business has been actively exploring a wind farm development opportunity in the Cahermurphy area since early 2018. The community engagement model which we use within our team has given us an opportunity to meet with many people residing within 2 km of the potential wind farm and to take on board the views and concerns expressed.

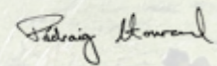
The proposed Cahermurphy II Wind Farm project is nearing the end of its pre-planning phase and should shortly enter the planning process. Under normal circumstances, we would be holding further public information events now in order to present the enclosed information to the wider public in the area surrounding this project. However, the Covid-19 pandemic and associated restrictions mean that this engagement must now be conducted in a socially distant way to respect public health advise.

As an alternative to a public gathering, we are now distributing the attached information very widely in order to ensure your views are considered in the final design of the project which will be submitted to the formal planning process. It sets out a detailed overview of all aspects of the proposed Cahermurphy II Wind Farm project. We acknowledge that this is a different way of engagement under the circumstances, but 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 and also make available the necessary resources within our team to listen to and consider any concerns or views that you may wish to express in relation to the proposed Project.

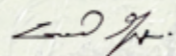
Once you have had a chance to read through this brochure, please do make contact with any of the team using the contact details at the back if you have any areas of the project you wish to discuss further. Whilst we cannot call directly to your home, we would welcome the opportunity of discussing any aspect of the project with you over the phone or by email.

Please stay safe and well, and adhere to all HSE guidance. If there is anything we can do to help, please do not hesitate to get in touch.

Yours sincerely,



Pádraig Howard
CEO
Mid Clare Renewables



Ger Hynes
Project Manager
Coillte Renewable Energy

This brochure has been prepared to:

- Provide an update on the proposed Cahermurphy II 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 Local authority.

Why Onshore Wind?

In May 2019, Dáil Eireann 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° 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.

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) announcing a target of 70% of Ireland's electricity from Renewable resources 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;
- A target for the renewable share of electricity generation of 70% by 2030.
- Provision for five-yearly carbon budgets, consistent with the emissions reduction path way to 2030 and 2050.

The amount of wind energy installed in Ireland has reached 4100 MW generated by 350 wind farms and the Irish Government has recently published 'Project Ireland 2040: National Development Plan 2018 – 2027', which outlines the need for an additional 3,000-4,500 MW of renewable energy as an investment priority. The further development of renewable energy sources is a vital component of Ireland's strategy to tackle the challenges of



Tom Costello, CLO at Sliabh Bawn with 12th Roscommon scouts who received funding to purchase equipment from the Community Benefit Fund at Sliabh Bawn.

combatting climate change and ensuring a secure supply of our future energy needs. The proposed project is being brought forward in response to these challenges. Coillte's ambition is to deliver at least a 1GW of that requirement over the next decade.

Wind energy makes sense for Ireland for many reasons. It's 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 don't produce atmospheric emissions that cause acid rain or greenhouse gasses. Wind energy is a domestic natural resource, produced in abundance in Ireland and is free.

The Team

Coillte and MCRE Windfarm Ltd are proposing to enter into a Co-Development Agreement for the Cahermurphy II project. Both Coillte and MCRE have strong links in the local community through forestry and the successful approach taken by MCRE to date whereby local farming families are centrally involved in the harnessing of the renewable resources on their lands. Jointly the potential co-development partners believe the community in the area should see a benefit from the proposed project. The Cahermurphy II project will see the involvement of a number of farming families in the development of the project. Through collaboration and pooling of the land resources, a viable project of significant regional and national importance can be realized.

Coillte Renewable Energy is part of the Land Solutions division within Coillte and 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). The team involved in this project will combine MCRE personnel and Coillte personnel 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. This project is part of a wider Coillte ambition to support the delivery of a further 1 GW of renewable energy and therefore make a significant contribution to the ambitions outlined in the All of Government Climate Action Plan 2019.

Coillte's land asset is ideally suited to wind farm development due to the predominance of rural landholdings in areas of high wind resource. As a wind farm uses such a small proportion of a site area, approx. 3%, many other land uses can coexist such as Coillte's forestry business, recreation offering and biodiversity management.

About the Site

The proposed wind farm site is located approximately 25 kilometres southwest of Ennis, Co. Clare and approximately 20 kilometres northeast of Kilkee Co. Clare. The site comprises lands at Cahermurphy, Knocknahila More South, Carrownagry South, Caheraghacullin, Cloghaun More (East) and Cloghaun Beg (East) Co.Clare.

The proposed wind farm site measures approximately 492 hectares. The site and its elevation ranges between 70m and 142m above sea level.

The site is mainly composed of coniferous forestry, agriculture and turbary and this will continue in conjunction with the proposed renewable energy project.

Why this site?

- Identifying a site suitable for a wind farm encompasses several considerations. Suitability of the Cahermurphy site can be attributed to the following characteristics:
- The site is located in an area designated as 'Strategic' (a site of Regional and National Importance) in the 2017 Clare Wind Energy Strategy, Clare County Development Plan.
- The site is not designated as 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 at an acceptable location for connection to the National Electricity Grid via existing substation infrastructure in the area.
- The site has excellent annual average wind speeds.
- A significant setback from houses can be achieved, with the closest dwellings at circa 700m setback from the turbines.
- There is a network of existing wind farm and forestry access roads within the site that can be utilized.



Turbine towers arrive in several parts and are constructed on site.

2. PROPOSED DEVELOPMENT

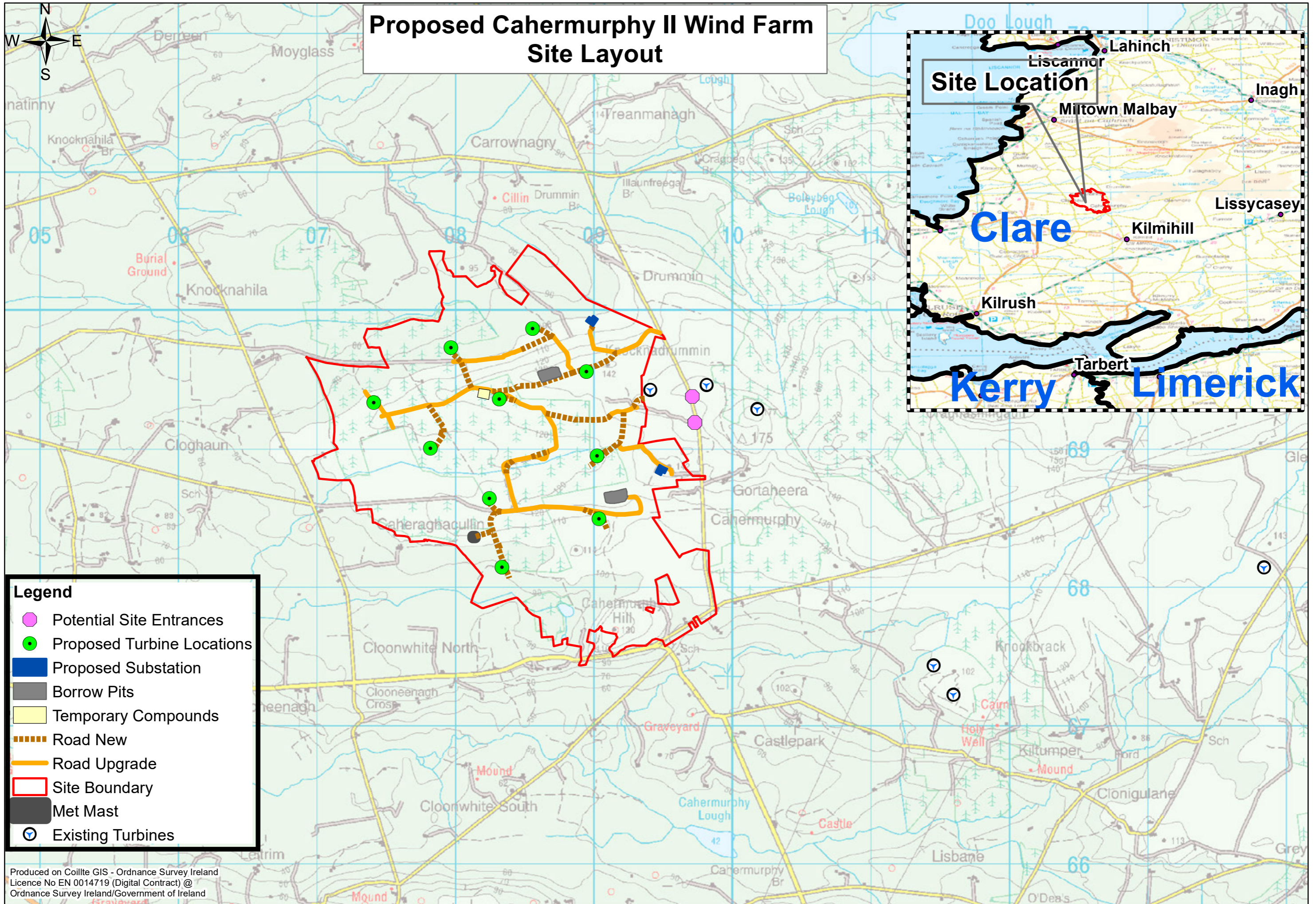
The constraints mapping, site investigation survey and public engagement processes led to the current turbine layout. The proposed development currently comprises the following:

- Up to 10 wind turbines with a proposed overall blade tip height of up to 170 meters and all associated foundations and hard-standing areas;
- An electrical substation with 1 control building and associated electrical equipment;
- 2 borrow pits (to source stone on-site for road upgrade and construction and to minimize construction traffic);
- 2 peat deposition areas (for the excavated peat from the construction phase);
- 1 permanent anemometry mast up to a height of 100 metres;

- Upgrade of existing wind farm and forest roads and provision of new site access roads and associated drainage;
- 2 temporary construction compounds;
- All associated internal and grid connection underground cabling; and
- Biodiversity enhancement areas.

It is proposed to construct a 38kv substation at the site and to connect from here to the national electricity grid at the existing Booltiagh or Slieve Callan 110kV substations.





3. COMMUNITY BENEFIT AND INVESTMENT PROPOSAL

How will this project benefit the local community?

Cahermurphy II 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 which are estimated at €350,000 per annum and it will 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 lifetime of the project to provide direct funding to those areas surrounding the project.

What will the community benefit fund look like?

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 Renewable Energy Support Scheme (RESS). Both sets of policy are expected to be finalised during Q2/Q3 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 Coillte & MCRE approach to community benefit.

Coillte & MCRE 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. first 15 years of operation and €1 per MWh for the remaining lifetime of the wind farm. If this commitment is improved upon in upcoming Government Policy we will adjust accordingly. If this project is constructed as currently designed

we estimate that a total of approximately 5.6 million euro will be available in the local area for community funding over the lifetime 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 (we can have both good and bad wind years).

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 should 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 would then work on designing the makeup and structure of a community entity that would administer the Community Benefit Fund. We aim to commence this work in summer 2020 and if you are interested in joining this working group, please contact us.



Local primary school students enjoying a study day at Raheenleagh Wind Farm in Co Wicklow.

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, MCRE and 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 2020, to continue to explore this exciting possibility and see how best to embed its design within the community.

Additional Benefits arising from the construction and operation of the proposed development:

- Up to 40 people directly employed at peak construction.
- 2-3 long term, high quality technical jobs in operation and maintenance.

Substantial rates paid to Clare County Council:

- » Rates paid to Clare County Council for the proposed development will likely 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 €336,000 would be collected by Clare County Council rising to approximately €672,000 if the more recent suggested rates are adopted nationwide.
- Indirect employment created through supply of a wide range of products and services.

4. SITE DESIGN PROCESS

The design process for the proposed development was constraints led. Effectively, this means that certain areas of the site were “off limits” due to the established constraints or buffer zones applied to wind farm design and development.

The constraints map for the proposed project was produced following a desk study of all site constraints, including the following associated buffers specifically in relation to the wind turbines:

- Dwelling Locations plus 700-metre buffer;
- Designated sites plus 100-metre buffer;
- Streams plus 50-metre buffer;
- Lakes plus 50-metre buffer;
- Telecommunication Links plus operator-specific buffer;
- Overhead Electricity Transmission Lines plus 3 x Proposed Rotor Diameter buffer;
- Existing wind turbine plus 4 x Rotor Diameter setback.

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 roading, crane hard stands and substation, was then developed following confirmation of the 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 period exceeding two years 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.

5. THE PLANNING PROCESS

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, a scoping document was prepared and circulated for comment to statutory and non-statutory consultees and in addition to the near neighbours.

Regular consultation with local residents was maintained throughout the design and environmental assessment process. Focusing on those residents within 2 km of a potential turbine location, detailed face-to-face consultation has taken place since early 2019.

Environmental Impact Assessment Report

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

- 1. Introduction**
- 2. Background to the Proposed Development**
- 3. Site Selection & Alternatives**
- 4. Description of the Proposed Development**
- 5. Population & Human Health**

6. Biodiversity

7. Birds

8. Land, Soils and Geology

9. Hydrology and Hydrogeology

10. Air and Climate

11. Noise and Vibration

12. Landscape and Visual

13. Archaeological, Architectural and Cultural Heritage

14. Material Assets (includes Traffic and Transportation)

15. Interaction of the foregoing

16. Schedule of Mitigation Measures

Planning Application

An application for planning permission for Cahermurphy II Wind Farm will be submitted directly to Clare Co. During the project design and environmental assessment, meetings were held with the local planning authority, Clare 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) in accordance with Appropriate Assessment requirements. A website will be created to present the full application and all the supporting documents and drawings.

6. SHADOW FLICKER

Shadow flicker occurs at certain times of the year when the sun is low in the sky and where the movement of rotating blades can periodically cast shadows over a window in a nearby property. Shadow flicker is an indoor phenomenon, which may be experienced by an occupant sitting in an enclosed room when sunlight reaching the window is momentarily interrupted by a shadow of a wind turbine's blade. Outside in the open, light reaches a viewer (person) from a much less focused source than it would through a window of an enclosed room.

Any potential shadow flicker impact can be modelled (as it only occurs when the sun is shining and the turbine blades are moving) to give the start and end time (accurate to the second) of any incidence of shadow flicker, at any location, on any day or all days of the year when it might occur. Where a shadow flicker impact is predicted to occur, the total maximum daily and annual durations can be predicted, along with the total number of days. The project has been designed to adhere to forthcoming legislation on wind farm development.

7. BIODIVERSITY

Ecological walkover surveys were undertaken by MKO (the EIAR Consultant) in April, July and August 2019. The survey timing falls within the recognised optimum period for vegetation surveys/habitat mapping, i.e. April to September (Smith et al., 2011) and all faunal surveys were undertaken within the optimal seasonal requirements.

Habitats were classified and mapped based on the vegetation present and management history.

Habitat mapping was undertaken with regard to best practice guidance and the presence or signs of birds, mammals, amphibians and reptiles were noted during the visits. The vast majority of the site comprises coniferous forestry plantation, which has been targeted for citing of proposed roads and turbines. Any bare or peatland habitat was largely avoided.

Evidence of badger, Irish hare and fox were recorded during the surveys. No badger setts or squirrel dreys were recorded within the footprint of the proposed development. The bat species recorded within the site are common and widespread in Ireland and no roosting sites were identified within the proposed development site.

The proposed development has been designed to avoid ecologically sensitive areas and has been constraint led from the initial design phase. The project design has followed best practice principles to eliminate the potential for ecological effects on sensitive habitats and fauna.

8. BIRDS

It is recommended to conduct bird surveys for a period of two full years to encompass full breeding seasons (SNH, 2017). At Cahermurphy II, the survey period started in April 2017 and is ongoing. The surveys are designed to identify any sensitive species of birds that may use the site and the lands surrounding the site. Once all the data is gathered over the two year period it is used to see if the proposed wind farm is likely to have any significant effects on the bird population.

The surveys undertaken for the Cahermurphy II Wind Farm development were:

- Observation from fixed viewpoints called Vantage Point Surveys
- Breeding Bird Walkover Surveys and birds of prey (raptor) surveys
- Breeding Woodcock Surveys
- Red Grouse Surveys
- Hen Harrier Roost Surveys
- Winter walkover surveys known as Transect Surveys

The key findings from these surveys identified;

- That the site is not extensively used by many bird species that are sensitive or protected which utilise the development site and the wider area.
- Occasional observations of hen harrier in the periphery of the development area,

The development footprint is largely located within areas of conifer plantation and avoids areas which are utilised by red grouse and hen harrier.



9. SOILS, GEOLOGY AND WATER

Geology and Soils

The published soils map (www.epa.ie) for the area show that blanket peat is the dominant soil type with areas of poorly draining mineral soil (AminPD) and poorly drained peaty soil (AminPDPT) being mapped on the northern and south-eastern slopes of the wind farm site.

Peat depths at the proposed wind farm site ranged from 0 to 2.7m with an average depth of 0.7m. Over 95 percent of peat depth probes recorded peat depths of less than 3.0m. The peat depths recorded at the proposed turbine locations varied from 0.25 to 2.6m with an average depth of 0.7m.

The on-site surveys and assessments that have been carried out include peat depth with probing, peat shear strength testing, recording of areas low/medium/high risk of peat instability, logging of trial pit and borehole investigations and identification of borrow pit location(s). The proposed wind farm has been designed to avoid areas of deeper and potentially unstable peat. The findings of the site investigations and walkovers together with the detailed assessments have proven that the current proposed wind farm layout from a build ability and peat stability point of view is fully compliant with the principles of *Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (Scottish Executive, 2007)*.

10. AIR AND CLIMATE

Due to the location and the general character of the surrounding environment, air quality sampling was not required for the EIAR as air quality in the existing environment is good, since there are no major sources of air pollution (e.g. heavy industry) in the immediate vicinity of the site.

Water

The majority of the site drains in a south-westerly direction towards the Creegh River which is located approximately 3.5km downstream (south) of the proposed site. There are three main first order streams which emerge from the southern section of the site and flows towards the Creegh River.

Water related investigations carried out include two rounds of surface water sampling at multiple locations across the proposed development site and four rounds of surface water flow monitoring at various locations within the site, together with other assessments including flood risk, groundwater risk and nutrient release assessments. The findings of these site investigations and assessments will be presented in the Hydrology and Hydrogeology chapter of the EIAR, which include preliminary drainage design measures to reduce or eliminate the potential for any impact on water quality due to the construction and operation of the proposed wind farm.

The production of energy from wind turbines has no direct emissions as are expected from coal or oil-based power stations. Some minor, indirect and short-term emissions associated with the construction of the wind farm include vehicular and dust emissions.



11. NOISE

When considering a wind farm development, the potential noise and vibration effects on the surroundings must be considered for each of two distinct stages: the short-term construction phase and the longer-term operational phase. AWN Consulting Limited were commissioned to conduct an assessment into the likely noise and vibration impact of the proposed wind farm development. The existing noise climate has been surveyed at locations representative of the nearest noise sensitive properties and typical background noise levels for day and night periods at various wind speeds have been derived using best practice guidance. Background noise levels are due to local road traffic noise, agricultural sources and general human activities in an area together with natural sources such as breezes blowing through trees and bushes.

Predicted noise levels form a significant part of wind farm design and associated planning applications. Based on detailed information on the site layout, turbine noise emission levels and turbine height, noise level predictions at relevant noise-sensitive locations for a range of wind

speeds are developed. This process has now been completed for Cahermurphy II and results have been compared against derived day and night time noise criteria that are based on the prevailing background noise levels in the area and current best practice guidance.

When established wind developments exist within the vicinity of a new proposition, noise levels from the operational turbines form part of the assessment. Any noise attributable to existing wind developments is excluded when deriving background noise levels, but is included in the cumulative analysis such that noise from existing and proposed wind farms combined cannot exceed allowable limits as set out in the guidelines. What this in effect means is that the proposed development will be limited to lower noise levels than established wind developments, to ensure that allowable noise limits are not exceeded at nearby residences.

Cahermurphy II Wind Farm has been designed to comply with forthcoming Wind Energy Guidelines.



Photomontage from a location 4.13km to the southeast of the nearest turbine. Permitted Cahermurphy I & proposed Cahermurphy II wind turbines.

12. LANDSCAPE AND VISUAL

In order to carry out the Landscape and Visual Impact Assessment, an initial desk study is undertaken to establish the landscape, visual and cumulative baselines within a study area within 20km of the proposed turbines. The Zone of Theoretical Visibility (ZTV) map is also prepared to identify theoretical visibility of the proposed development and help identify the most potentially sensitive areas and identify the most appropriate locations to take photos and develop photomontages. Viewpoint locations are selected to assess the visual effects including settlements, roadways, recreational areas, scenic routes etc.

Photomontages are then prepared from each selected viewpoint and these are assessed in terms of the sensitivity of the visual impact, along with the magnitude of change, as recommended in the Guidelines for Landscape and Visual Impact Assessment (Landscape Institute, 2013). This, in conjunction with a detailed review of the photomontages themselves and the ZTV maps is what informs the visual impact assessment.

The landscape baseline includes identification of landscape designations and Landscape Character Areas (LCAs) in the study area outlined in the County Development Plan for Clare as well as landscape character of the proposed development site itself. For the visual baseline scenic routes and views, settlements, recreation destinations, recreation routes and major transport routes are identified. The design and layout of the proposed development has been informed with input from

the landscape assessment team working on the project which concluded that the proposal can be accommodated from a landscape and visual effects perspective at this location.

A selection of the photomontages that will be presented as part of the EIAR will be available to view on the project website.

13. CULTURAL HERITAGE

Cultural Heritage includes archaeology, architectural heritage and any other tangible assets. The assessment is based on GIS mapping and information from other mapping technologies together with detailed site walkover surveys and

visiting of any monuments within 10km of the proposed site. No recorded monuments or newly identified archaeological sites are located within the study area boundary. Therefore, no direct impacts to any of the such sites will occur.

14. ENVIRONMENTAL BENEFITS

The proposed development could generate approximately 48 MW per hour of renewable, clean electricity. Over the lifetime of the project, 1.9 million tonnes of carbon will be offset compared to traditional electricity generation. During construction and turbine manufacture, some carbon is lost to the atmosphere, but this will be offset by the proposed wind farm itself within 12-18 months of operation.

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.

The 48 MW of renewable electricity which could be generated by the proposed development, is enough to supply approximately 35,040 homes per annum based on average household use of 4.2MWh of electricity per year. (Source: Commission for Regulation of Utilities Typical Consumption Figure 2017). Central Statistics office, Census figures from 2016 show that there are 43,469 occupied dwellings in Co Clare.

The proposed wind farm will take up only a small portion of the total site area (~3%); the existing land-use of mainly commercial forestry will continue in conjunction with the proposed development.

15. MATERIAL ASSETS

Roads and Traffic

An assessment of the potential construction and operational phase effects on traffic using the public road network in the vicinity of the proposed wind farm site have been undertaken.

The turbine components will either be transported from the port in Galway City or Foynes on the M18 to Ennis and the N68 to Ballyduneen, the R484 to Creegh before turning east on the local road network, through Clooneenagh, turning north towards the site just east of Cahermurphy Hill.

Construction materials such as concrete, steel and other materials will follow the same transport route as turbine components from the R484.

The delivery of the proposed wind turbine components and all other construction materials to the proposed development site have been assessed as part of the Traffic and Transport section of the EIAR.

16. NEXT STEPS

Upon completion of the Coillte & MCRE intends to submit a planning application to Clare County Council for the proposed development in the coming weeks. The planning application will include:

- Planning Application Form
- Planning application Fee
- Public site notices
- Newspaper notice
- Planning Drawings
- Environmental Impact Assessment Report and appendices
- Natura Impact Statement

Notification of the intention to lodge the application will be placed in a local newspaper. MCRE will also continue to update all residents closest to the development on the project progress and will notify them of the intended lodgement date.

Once submitted, all planning application documents and drawings will be available for viewing in the offices of Clare County Council, and on the project website.

Following lodgement of the application, members of the community can make submissions to Clare County Council during the public consultation period which lasts five weeks. MCRE & Coillte will continue to be available to discuss any individual queries in relation to the planning application.

17. CONTACT US

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Photograph obtained from a location 4.37km to the southwest of the nearest turbine. Permitted Cahermurphy I & proposed Cahermurphy II wind turbines.



Appendix B – Early Stage Photomontages
Showing the turbines to the east of Cahermurphy I

