RWE

Proposed Castlegarden Wind Farm

RWE Renewables Ireland,
Unit 5 Desart House,
Lower New Street,
Kilkenny City,
R95 H488

rwe.com

The Need for Wind Farms in Ireland

Last year the Government launched the Climate Action Plan 2021 (CAP21), an ambitious plan to put Ireland on a more sustainable path, cutting emissions, creating a cleaner, greener economy and society, and protecting us from the devastating consequences of climate change.

The CAP21 commits Ireland to a legally binding target of net-zero greenhouse gas emissions no later than 2050 and an emissions reduction of 51% by 2030.

Among the most critical measures in the plan, is to increase the proportion of renewable electricity up to 80% by 2030. This will include nearly doubling the installed capacity of onshore wind in Ireland from over 4,000MW to 8,000MW. The development of new onshore wind farms are therefore crucial as we move away from our reliance on fossil fuels and towards the electrification of transport, heat and other areas.

While offshore wind will play a part in these 2030 targets (rising from 25MW in 2021 to 5,000MW in 2030), onshore wind is still fundamental to the decarbonisation of the electricity market in Ireland.

Onshore Wind

The first wind farm in Ireland was built in Co. Mayo in 1992 and consisted of 21 turbines with a total capacity of 6.45MW. Now there are over 300 wind farms across Ireland capable of generating over 4,300MW of electricity.

Situated at the Western side of Europe, Ireland has enormous wind generation potential. Wind energy is a clean, non-polluting energy source which does not produce harmful emissions or greenhouse gases. Wind energy is a free natural resource produced in abundance in Ireland.

According to the Sustainable Energy Authority of Ireland (SEAI), wind energy is currently the largest contributing resource of renewable energy in Ireland. It is both Ireland's largest and cheapest renewable electricity resource. In 2020 wind energy provided over 86% of Ireland's renewable electricity and 36% of our total electricity demand.

Onshore wind will help us achieve our renewable energy and climate action goals. Onshore wind development will also continue to provide investment and employment nationally, regionally and locally, and particularly to rural communities.

Why Wind Farms?

- The CAP21 states that by 2050 our homes, cars, workplaces, shops and schools will be powered by electricity generated in Ireland from a renewable energy source and by 2030 that 80% of electricity generated in Ireland is to come from renewable energy
- An onshore wind farm generates clean, renewable, carbon neutral electricity and is Ireland's cheapest method of electricity production (SEAI)
- Ireland has the second highest wind resource in Europe and wind energy is the largest contributing resource of renewable energy in the country (SEAI)
- Every MW generated is the equivalent of powering approximately 625 homes for a year (SEAI)
- Ireland has invested over €7 billion on developing onshore wind energy to date (Wind Energy Ireland (WEI))
- The wind industry supports over 4,000 jobs in Ireland and annually pays more than €30 million in commercial rates to local authorities (WEI)
- The amount of CO_2 avoided through the use of renewable energy in 2020, was 6.6 million tonnes of CO_2 ($MtCO_2$). This was equivalent to the CO_2 emissions of over half of all Irish homes. (SEAI)

Proposed Castlegarden Wind Farm

RWE is currently investigating the option to develop a wind farm in the townlands of Castlegarden and Raheenroche, Co. Kilkenny.

The proposed Castlegarden Wind Farm will help Ireland meet its Climate Action Plan 2021 target. The proposed development will generate renewable energy helping to displace thousands of tonnes of carbon dioxide over its lifetime. It will lead to cheaper electricity, energy security and help Ireland meet its challenging climate change and decarbonisation targets.

It will also lead to tangible local benefits such as employment opportunities during the construction and operation phases, payments into a Community Benefit Fund and indirect benefits to the wider community from business rates generated from the wind farm and paid to Kilkenny County Council.

What Is Happening Now?

The RWE Development Team has identified an initial study area for the proposed Castlegarden Wind Farm, for up to 5 wind turbines (with a capacity of up to 25MW) with associated internal roads, an electrical substation, underground cabling and ancillary works. Environmental Impact Studies will commence within the area soon.

Public Consultation

RWE is committed to community engagement in all of its projects and is now entering into a pre-planning consultation period with stakeholders, especially local residents, to answer questions, allay any concerns and gather feedback on the proposed project.

RWE are conscious of restrictions relating to COVID-19 and the team is following all necessary guidelines. We would hope that we will be able to visit you individually as we undertake our usual door to door engagement. You can of course call us on 087 1519219 or 056 7715782 with any queries you may have. We can also facilitate virtual calls.

We welcome email correspondence to our dedicated project email address **castlegarden@rwe.com** or by post to our office in Kilkenny at Castlegarden Wind Farm, RWE Renewables, Desart House, Lower New Street, Kilkenny, R95 H488.

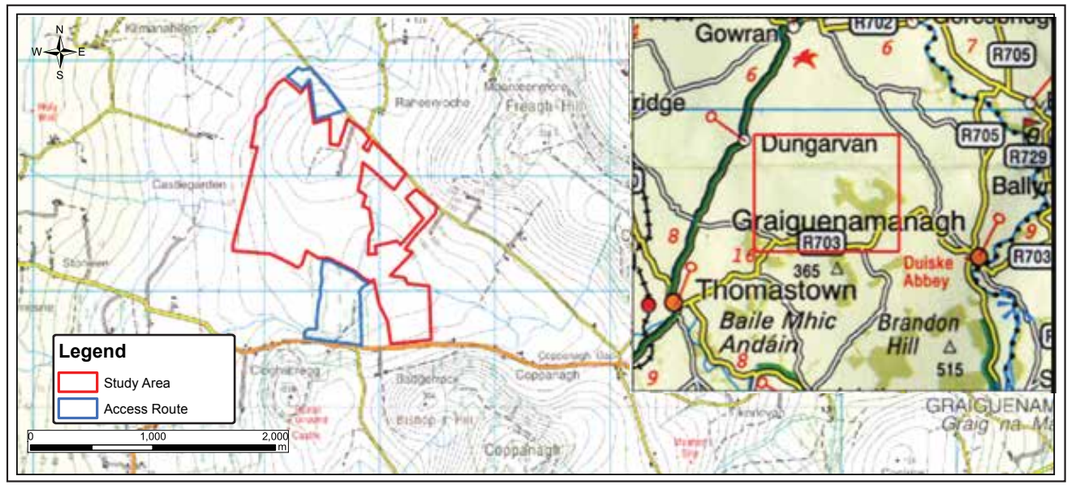
We have a project website which will be updated with relevant information as the project progresses. Please find it at:
www.rwe.com/castlegarden

Next Steps

All feedback received from this pre-planning consultation and engagement with the local community will help inform the design of the proposed wind farm.

Once we have incorporated your feedback into the proposed wind farm we will reach out to the community once again to update you.

Project Road Map



MAP OF STUDY AREA

Why is Castlegarden Suitable?

Identifying a site suitable for a wind farm encompasses several considerations as outlined in more detail below in the section on "How Developers Decide Where a Wind Farm might be Placed".

In summary, the proposed Castlegarden Wind Farm is located in an area of appropriate wind speeds with suitable available land on which to develop a wind farm. The land is in an area designated as "Open for Consideration" for wind farm development in the currently adopted Kilkenny City & County Development Plan 2021 - 2027.

The proposed Castlegarden Wind Farm site does not contain areas designated as European Protected Natura 2000 sites, meaning that it is not a Special Area of Conservation (SAC) or a Special Protection Area (SPA) and also does not contain any nationally designated Natural Heritage Areas (NHA).

The proposed site occupies a sufficient area of land to accommodate a wind farm while keeping an appropriate distance from dwellings in line with government guidelines.

Facts about the Proposed Castlegarden Wind Farm

- The proposed wind farm is located approximately 3.5km south-east of Dungarvan and approximately 6km north-east of Thomastown.
- The study area comprises lands at Castlegarden & Raheenroche and measures approximately 211 hectares.
- The study area elevation ranges between 165m to 200m above sea level.
- The proposed wind farm area under consideration consists of agricultural land and forestry. These land uses could continue with a wind farm development at the site.
- Based on the results of initial studies it is considered that the proposed wind farm could accommodate up to 5 turbines.
- Each wind turbine could be up to 180 metres in height (from the turbine base to the top of the turbine blade, when blades are in an upright position).
- Based on current available turbine technology, the capacity of each proposed turbine could be approximately 5MW resulting in a total estimated capacity for the proposed wind farm of 25MW.

What Benefits are there for the Local Community?

Community Benefit Fund & the RESS Scheme

In 2020 the Government launched the Renewable Electricity Support Scheme (RESS) for communities living close to onshore wind farms. A key feature of RESS is that all renewable electricity generation projects ("RESS Projects") must establish a Community Benefit Fund to be used for the wider economic, environmental, social and cultural well-being of the local community.

The scheme mandates that all RESS projects must establish a Community Benefit Fund worth €2 per megawatt hour of generated electricity for any future wind farm. This fund will be under the control of the local community.

The proposed wind farm in Castlegarden and Raheenroche has a potential installed capacity of approximately 25MW. If future terms and conditions are similar to RESS2 requirements, this could mean that between €145,000 and €160,000 is paid into a community fund each year (based on the amount of electricity that could be generated by the wind farm every year). The amount of funding will be dependent on the final capacity of the wind farm and the amount of electricity generated by the turbines when operational.

The Government RESS Guidelines (Terms and Conditions for the Second Competition under the Renewable Energy Support Scheme RESS2 October 2021) stipulate that the Community Benefit Funds generated will be distributed as per the guidelines which are as follows:

A. *"In respect of Onshore Wind RESS 2 Projects, a minimum of €1,000 shall be paid to each household located within a distance of a 1 kilometre radius from the RESS 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 (Quality Education), 7 (Affordable and Clean Energy), 11 (Sustainable Cities and Communities) and 13 (Climate Action)"*

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"*

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 RESS2 Projects, on "near neighbour payments" for households located outside a distance of 1 kilometre from the RESS 2 Project but within a distance of 2 kilometres from such RESS 2 Project"*

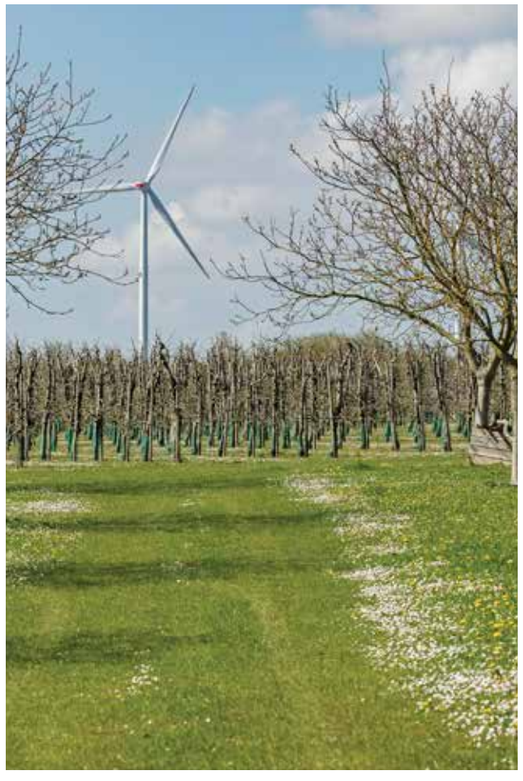
Community Benefit Fund post RESS period - RWE extra Community Benefit

In addition to the 15 years of Community Benefit Funds as stipulated in RESS2, RWE will commit to maintaining a community benefit fund for the full lifetime of the windfarm (up to 35 years) in line with best practice and guidelines.

Administration of the Fund

As per the RESS Guidelines, each Community Benefit Fund will be administered transparently by an independent organisation and any administration costs will be paid out of the Community Benefit Fund (up to 10% of the fund).

RWE supports the development of a funding process that puts decision making firmly into the hands of local communities. A panel of local community representatives would form a committee to decide how best to invest the fund in a variety of projects that could benefit residents, local businesses and the community. This could include skills development and creating job opportunities, tourism initiatives and area regeneration projects.



Jobs and Supply Chain Opportunities

Up to 50 jobs could be created during the 1.5 – 2 years of construction of the proposed Castlegarden Wind Farm. Construction materials will be sourced locally where possible, promoting employment in the area.

Once the main civil engineering and turbine contracts have been placed, there will be opportunities for local supply chain companies to tender for contracts including traffic management, materials supply, plant hire, fencing, fuel supply, security, waste management, signing & lighting, telecommunications, drainage and hospitality.

Business Rates

A significant wider benefit of the proposed Castlegarden Wind Farm would be the annual business rates contribution paid to Kilkenny County Council (based on the installed capacity of the project) to be paid for the full operational life of the wind farm. These business rates will significantly benefit the wider local economy and could represent an annual contribution of approximately €18,000 per MW per annum to the County, equating to approximately €450,000 annually.

Wind Energy Development Guidelines

Wind farm design in Ireland is governed by a series of Governmental and environmental planning laws, regulations and guidelines including the Wind Energy Development Guidelines (2006), the Draft Revised Wind Energy Development Guidelines (2019), the Planning & Development Act & Regulations and the EPA Environmental Impact Assessment Report (EIAR) & Appropriate Assessment (AA) Guidelines. These take account of many factors and criteria.

Please note that the Draft Revised Wind Energy Guidelines (2019) stipulate that "no existing dwelling or other affected property (e.g. existing work places or schools) should experience shadow flicker". The Draft Revised Wind Energy Guidelines (2019) also indicate that noise levels cannot exceed "a maximum noise level of 43dB" (about the same noise as a fridge makes).

While these are "Draft" Wind Energy Guidelines and not yet been fixed by the planning authorities, RWE will adhere to the latest planning laws, regulations and guidelines that are in place at the time of submission of the application.

As prescribed under EU and National Legislation, proposed wind farm developments with more than 5 turbines or having a total output greater than 5MW, must undergo an Environmental Impact Assessment (EIA) and require the preparation and submission of a comprehensive Environmental Impact Assessment Report (EIAR) by a prospective planning applicant. Subject to screening for the requirement for an Appropriate Assessment (AA), proposed wind farm developments may also require the preparation of a Natura Impact Statement (NIS). The results of the EIAR, AA screening and/or NIS feeds into the decision process in designing the layout of a wind farm.

RWE Pledge – "A Living Legacy"

RWE has pledged that the company will strive to leave a living legacy behind on each of its sites, not just in the development of clean renewable energy but also by increasing biodiversity and habitats while helping Ireland reduce the country's carbon emissions. RWE has pledged that it will deliver positive biodiversity elements in each of its new wind farm projects as they are developed.

During the planning and construction of a wind farm it is often possible to include improvements to biodiversity within the project boundary, such as the development of ponds or wetland areas, wildflower meadows, planting of native trees, shrubs, butterfly & bird friendly zones and provision of "wild" areas on the site.

RWE will work with local landowners and ecologists to develop areas within the wind farm that can be rewilded or otherwise enhanced and improved for the benefit of wildlife, enabling RWE leave a living legacy behind at each of its wind farms.

How Developers Decide Where A Wind Farm Might Be Placed

1. Assess the areas of wind potential ranging from areas with extensive wind energy resources to lesser wind resources using SEAI's Wind Atlas for Ireland.
2. Review the County Development Plan to identify those areas which have been zoned strategically for wind development by the County Council / local planning authority. In conjunction with the plan prepare an evaluation of the landscape and its sensitivity for wind energy developments.
3. Identify suitable lands in the area large enough to accommodate a wind farm, while maintaining an appropriate distance from houses in line with national guidance and best practice.
4. Any Natura 2000 Sites or national environmentally designated sites in the area are identified and avoided.
5. Integrate the areas identified in the above steps with information regarding accessibility to electricity transmission and distribution grids.
6. After these initial investigations, a potential area for development is identified and the next step is to identify 'constraints'. A constraint is a limiting factor on selection of a site such as nearby houses, cultural heritage, environmental or technical / physical factors (mountains / rivers / lakes/ geology, etc.).
7. These are then mapped and the remaining parcels of land that could potentially accommodate a wind farm are identified.

Environmental Impact Assessment Report (EIAR)

The EIAR is a document that describes the proposed development and reports on all issues relating to the potential impact of the proposed wind farm on the environment. It forms part of the planning application which is submitted for consideration to the Local Authority.

The Report includes many detailed chapters including Background to the Proposed Development, Site Selection and what the alternatives might have been and a Description of the Project.

The Report looks at the direct and indirect significant effects of a project on the following factors: a) population and human health; b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; c) land, soil, water, air and climate; d) material assets, cultural heritage and the landscape; e) the interaction between the factors referred to in points (a) to (d).

What makes up a wind farm?

A wind farm is made up of several structures including turbines, underground cabling from the turbines to an electrical substation and the substation structure itself. There would also be a network of roads on site linking the turbines and substation together for staff operations and maintenance.

A wind farm needs to be connected to the electricity grid which can be done either by linking to a suitable overhead powerline nearby or using underground cables to get the renewable energy to a nearby substation.

Wind Turbines

The wind turbines harness the wind energy and convert it to electricity before transporting it to the national grid for distribution. Generally the larger the turbine the more energy it can produce. In Ireland, wind farms are increasingly designed with smaller numbers of more powerful turbines to maximise the renewable wind energy from the site.

Access Roads

A network of access roads are needed to deliver the components to site and facilitate access by the operations team to the turbines for routine maintenance.

We endeavour to use existing tracks and we design roads along field boundaries to reduce potential impact. Landowners have use of these tracks once they are built.

Underground Cables

Each wind turbine is connected to the substation via an underground cable, generally running alongside the network of access roads.

Substation

All the electricity generated by the turbines is fed back through the underground cables to the substation before being transmitted off-site to the national grid network.

Your Views Matter To Us

We want to hear from the local community and provide you with the opportunity to find out more about the project, enable you to ask any questions and to feed your thoughts and concerns into the design evolution of the project.

More information can be found on the website at **www.rwe.com/castlegarden**

Telephone **056 7715782 or 087 1519219** and a member of our team will speak to you

Email us at **castlegarden@rwe.com**

Write to us at
Castlegarden Wind Farm,
RWE Renewables Ireland Limited,
Desart House,
Lower New Street,
Kilkenny,
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RWE Renewables in Ireland

RWE ranks among the largest companies in renewable power generation with its technology portfolio covering onshore and offshore wind farm projects, utility-scale photovoltaic (PV) solar power projects and energy or battery storage.

RWE Renewables Ireland has been operating in the country since 2016, and now has two offices, one in Kilkenny City and one in Dun Laoghaire, Co Dublin.

RWE's objective is to be a long-term energy partner for Ireland during the country's energy transition to zero carbon emissions. In line with this, RWE is aiming to further expand its portfolio in Ireland and is actively seeking new opportunities to expand the use of renewable energies with technologies that address the concerns about energy security, energy affordability and climate change.