



Carrigadoon Wind Park Project

Carrigadoon Wind Park Project

Co. Tipperary

Community Update
September 2014



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Project Overview

- DunoAir is currently developing a proposal for a wind energy project at Carrigadoon Hill and Curraghadobbin Hill, Co. Tipperary.
- The Carrigadoon Wind Park will generate clean energy for homes and businesses in Ireland – **locally-generated electricity for local use.**
- The proposed project will comprise 8 X 3 Megawatt (MW) turbines on Coillte lands with an installed capacity of 24 MW.
- The project will generate about 75 GWh per annum, enough clean energy to meet the annual electricity needs of approximately 15,000 homes or almost half of the homes in South Tipperary ^[1].
- A community benefit scheme will be put in place to include a community fund and a community turbine co-ownership scheme.
- Contributions to the local economy will include development contributions and annual rates payable to the local authority.
- The project will create and sustain jobs locally in construction, operation and maintenance of the wind park.
- Community consultation on the project is now underway.

^[1] Sources: Central Statistics Office 2011 census (updated 2013-04-04), and Sustainable Energy Authority of Ireland 'Energy in the Residential Sector 2013' report.



Why Wind Energy?

- Wind is Ireland's primary source of renewable energy.
- Harnessing the wind means reducing Ireland's dependence on expensive, imported fossil fuels like oil and coal.
- Wind generation is proven, reliable technology. Wind farms have been operating in Ireland since 1992.
- Wind generated energy accounted for 15.3% of electricity demand in Ireland in 2012^[2] and approximately 18% in 2013^[3]. The national target for electricity generated from renewable sources is 40% by 2020.
- Wind will be the main driver in the transformation to a low carbon energy future and will contribute to the South Tipperary goal to have 20% of its energy supply produced in the county from renewable energy sources.
- Savings from wind generation in the Republic of Ireland in 2012 were estimated at €177 million in displaced fossil fuels and €11million in reduced CO₂ emissions.

^[2] Normalised actual figure from Sustainable Energy Authority of Ireland report: Quantifying Ireland's Fuel and CO₂ Emissions Savings from Renewable Electricity in 2012, Page 1

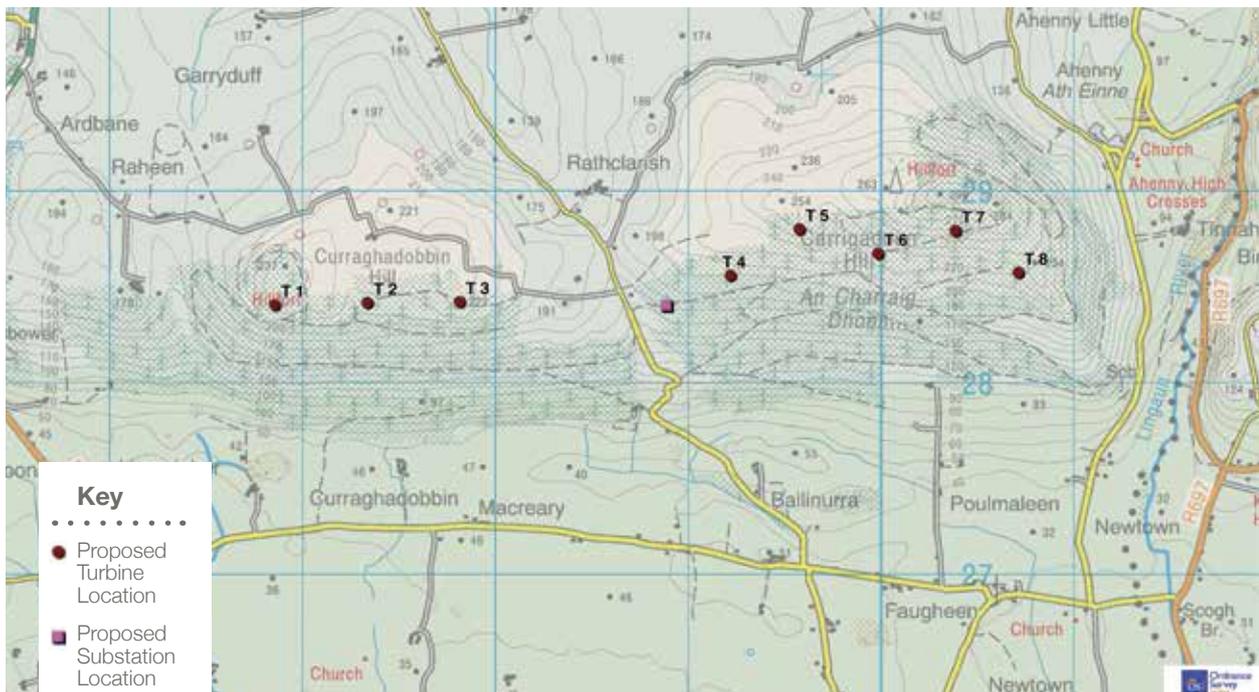
^[3] Provisional figure from EirGrid.

Project Location

How was the proposed site selected?

The site proposed for the development of the Carrigadoon Wind Park is described as an “area open for consideration” in the South Tipperary County Development Plan. DunoAir has an offer in place to connect into the grid at the Ballydine substation under the Gate-3 connection process. Favourable wind speeds at Carrigadoon Hill and Curraghadobbin Hill mean that, with the right technology, significant levels of clean electricity can be generated at this location.

There is sufficient space to accommodate eight 3MW turbines on the hillsides taking all wind energy guidelines into account. This is a map of the preliminary proposed turbine locations which will be subject to technical and environmental assessments. We would like to get your feedback on the proposed locations.



What is happening now?

A wind measurement study and environmental assessments are underway with a view to preparing an Environmental Impact Statement and a planning application for the project.

A temporary wind measurement mast has been erected on Carrigadoon Hill and will be decommissioned following the completion of the wind measurement campaign. Preliminary proposed turbine locations have been identified.

The project team has proposed a community benefit scheme (see Page 5 for details). Community consultation on the project is now underway. (see Page 6 for further details).

When will you be submitting for planning?

Subject to the successful completion of all necessary environmental studies, the project team intends to submit an application for planning permission to Tipperary County Council later this year (2014).



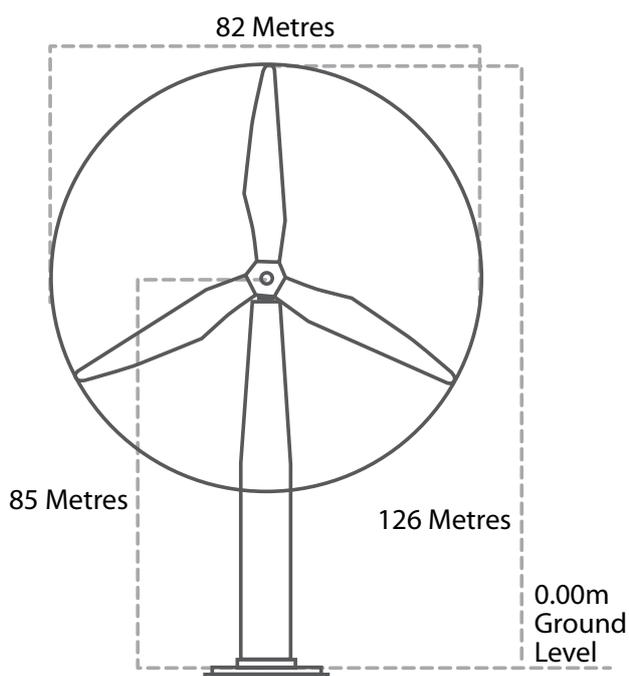
Project Details

How big is the proposed development?

The proposed wind park will consist of eight Enercon E-82 turbines on Coillte lands, with a generation capacity of 3 MW each giving an installed capacity of 24 MW. The development will include a small substation also located on Coillte lands. The Carrigadoon project will connect via an underground cable to the grid locally at the Ballydine substation.

What size will the turbines be?

The proposed turbines will have a maximum hub height of 85m, a rotor diameter of 82m and a maximum blade tip height of 126m. Turbines have been sized to be appropriate to the area and with due regard to the designation of areas for wind development as set out in the South Tipperary County Development Plan and the Wind Energy Development Guidelines in relation to setback distances, noise and shadow flicker.



How close will the turbines be to houses?

The draft national guideline for setback distance between turbines and houses is 500 metres. All of the proposed turbine locations are set back by a distance greater than 500m from houses in the locality.

Will there be shadow flicker?

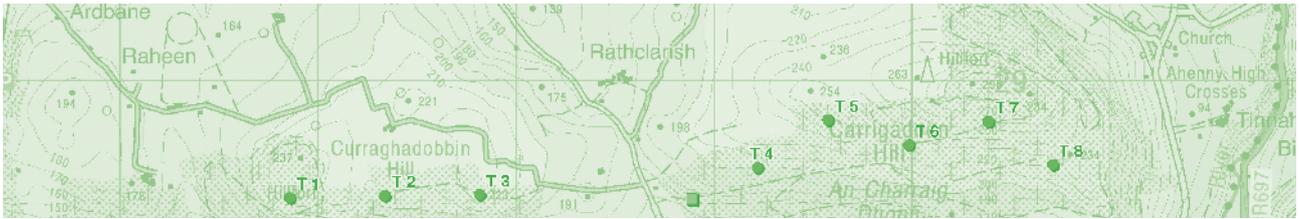
Given the positioning of the turbines relative to the path of the sun and the locations of the nearest dwellings, the potential risk of shadow flicker is low. However, shadow flicker will be modelled under a range of conditions and assumptions to ensure that it remains within the accepted limits as set out in the national guidelines and will not adversely impact upon surrounding dwellings.

Will there be noise?

Advances in turbine technology and design have resulted in reduced noise emissions. The state-of-the-art 3-blade turbines proposed for this project are direct drive machines. They have no high-speed mechanical components and therefore do not produce mechanical noise.

According to the Wind Energy Development Guidelines, noise is unlikely to be a significant problem where the distance from the nearest turbine to any noise sensitive property is more than 500 metres. Noise levels will be assessed and modelled under a range of conditions and assumptions to ensure that it remains within accepted limits as set out in the national guidelines and will not adversely impact upon surrounding properties.

See Page 6 for a comparison of noise levels.



Community Participation & Consultation

DunoAir is committed to local community participation in the Carrigadoon Wind Park project. It is vital that renewable energy projects are planned with the input of the local community. Important information and feedback provided by those who know the area best serves to inform the project team and can influence how a project develops.

What Community Benefit measures are being put in place?

The project team has consulted with local and national energy agencies in order to determine a best practice approach for community benefit. We have studied other community benefit approaches in Co. Tipperary, elsewhere in Ireland and in Europe. We have proposed a community benefit scheme to contain the two initiatives below and we welcome your feedback:

Community Fund

DunoAir will contribute €25,000 annually to a fund to be administered by the local community over the project lifetime (30 years).

Community Turbine

In what is a new departure for a developer-led project in Ireland, DunoAir will put in place a community turbine shared-ownership scheme. This will provide the opportunity for members of the local community to participate in the project and become co-owner of one turbine. An investment of €500 will secure one share returning a minimum guaranteed 4% annual dividend. Investors within a 4km radius of the site will receive an additional 1% neighbour bonus. An annual productivity bonus will be also paid subject to the generation performance of the community turbine. Shares will be offered to the local community on a first-come, first-served basis.

How is the local community being consulted?

In mid-July, a letter was delivered to the local community providing details about the project. A telephone information line, email service and project website have been set up. The project team is open to discussing all aspects of the project with members of the public and in particular would welcome views on:

- the proposed turbine locations. Public feedback will be considered while also taking account of the technical and environmental considerations,
- the proposed community benefit scheme,
- any other aspect of the project.

Community consultation on the Carrigadoon Wind Park project is now underway until **18th October 2014**. Once all public feedback has been evaluated the project team will prepare an Environmental Impact Statement which will form part of the planning application for the project.

How can I make a submission?

You can submit feedback by contacting the project team by email, phone or by post using the detachable submission form below. Submissions will also be taken at the forthcoming project open day.

Carrigadoon Wind Park Open Day

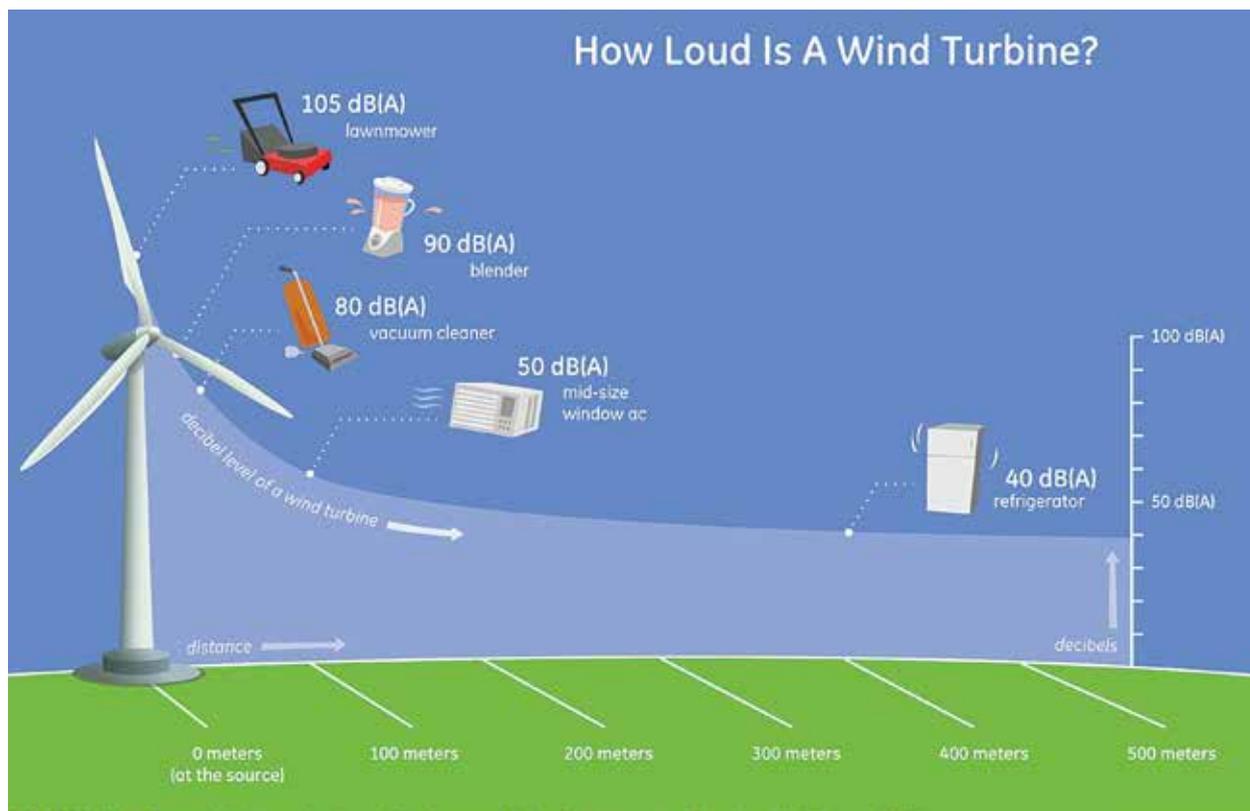
The project team is holding an open day to provide further information about the project, answer queries and record feedback from members of the public to inform the development of the project.

All are welcome. We look forward to meeting you.

VENUE: CARRAIG HOTEL, CARRICK-ON-SUIR, CO. TIPPERARY

DATE: FRIDAY 19TH SEPTEMBER 2014

TIME: 12NOON – 8PM



About DunoAir



DunoAir is a Dutch renewable energy company with a proven track record in completing wind projects that are economically, environmentally and socially sustainable. Over the past ten years, DunoAir has successfully installed 270 MW of renewable generation in Germany.

Protecting people and the planet is central to everything we do. Intensive contact and constructive collaboration with all project stakeholders from the outset results in a better project for everyone. Our first priority is to ensure that residents living close to our wind parks benefit from these projects. Protection of

flora and fauna is also pivotal to DunoAir's philosophy. When designing, engineering and implementing projects, DunoAir attaches great importance to conducting all necessary environmental studies to safeguard the natural environment.

We believe passionately in community participation in our projects and try to be a good neighbour. DunoAir's project manager for Ireland is involved in a 100% community-owned project in The Netherlands and has consulted on the development of other wind energy projects in Ireland.

www.dunoair.com

About Enercon



When building wind farms, DunoAir collaborates exclusively with ENERCON. A leading turbine manufacturer, ENERCON has been setting new standards in technological design for 30 years now. With more than 22,000 wind turbines installed in over 30 countries,

ENERCON is recognised as one of the leading turbine manufacturers internationally. The installation of the turbines will be conducted by Irish-based ENERCON personnel.

www.enercon.de/en-en

Affix postage
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**The Carrigadoon Wind Park
Project Manager**

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