SCOTTISHPOWER RENEWABLES

Barnesmore Windfarm Repowering

Welcome

Following the Public Information Days held in May 2019, we are hosting this event to update you on our proposals.

ScottishPower Renewables (SPR) has owned and operated Barnesmore Windfarm since 1997. The site has made a pioneering contribution to Ireland's Renewable Energy targets and low carbon objectives. We are seeking to secure and build on this contribution and propose to 'repower' the Site; removing the existing 25 turbines and replacing these with 13, larger, more efficient, modern turbines and co-located energy storage. This information day provides you with the opportunity to:

- See how the Development has progressed since May 2019;
- Understand the guiding design principles of the project;
- Have an overview of the environmental survey work undertaken;
- Openly discuss the Development with the Project Team; and
- See the economic benefits of the proposal and engage with the community benefit opportunities.

ScottishPower Renewables

ScottishPower Renewables (SPR) is part of the Iberdrola Group, one of the world's largest integrated utility companies and a world leader in wind energy.

ScottishPower only produce 100% green electricity - focussing on wind energy, smart grids and driving the change to a cleaner, electric future. The company is investing the equivalent of over €7m every working day to make this happen and is committed to speeding up the transition to cleaner electric transport, improving air quality and over time, driving down bills to deliver a better future, quicker for everyone.

Iberdrola has recently entered into the Republic of Ireland domestic energy market with Iberdrola Ireland. Irish consumers are now able to sign up to 100% green electricity tariffs.

ScottishPower Renewables is at the forefront of the development of the renewables industry through pioneering ideas, forward thinking and outstanding innovation. Its ambitious growth plans include expansion of its existing onshore wind portfolio, investment in new large scale solar deployment and innovative grid storage systems including batteries. The company is also delivering the Iberdrola Group's offshore windfarms in the Southern North Sea off East Anglia as part of an international pipeline of projects across Europe and the USA.

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Development Overview

Barnesmore Windfarm consists of 25 x 600 kilowatt (kW) wind turbines producing up to 15 megawatts (MW) of clean renewable power. The windfarm has been operating for over 20 years and SPR is now 'repowering' the site with larger, more efficient wind turbines. This means we have the opportunity to reuse the Site, maximising the benefits without the need to develop a new greenfield Site.

The table below summarises a comparison of the main Development parameters and illustrates the potential to increase the Site's generating capacity without having to extend the footprint of the existing Site. Each new turbine will be approximately 9 times more powerful than one of the existing turbines.

	Existing Site	Repowered Site
Number of turbines	25	13
Tip Height	61 m	Up to 180 m
Turbine Max Power	0.6 MW	Approx. 5 MW
Site Capacity	15 MW	Approx. 65 MW
Energy Storage	No	Yes, up to 15 MW

Co-Location of Energy Storage Technology

By storing and redistributing energy quickly, storage helps stabilise the national grid network. This helps make grid networks more resilient, efficient, and cleaner than ever before by supporting the increasing integration of renewable energy generation.

This stored energy can be used during emergencies like power outages during storms, or equipment failures. Co-locating this technology with a windfarm, sharing the grid connection, helps to maximise efficiency of the grid assets.

Existing Barnesmore Windfarm

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Design Considerations

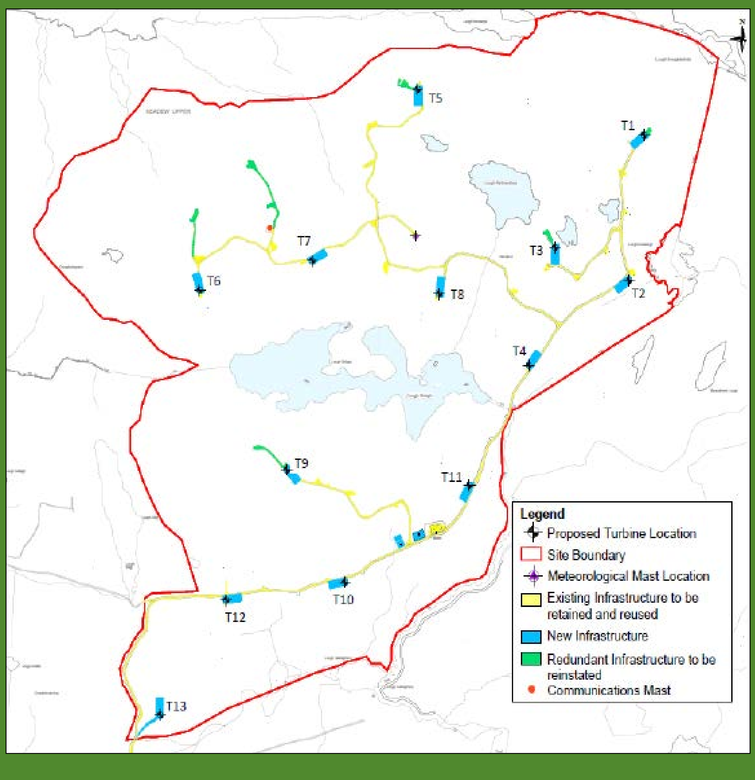
SPR, their consultants Jennings O'Donovan & Partners Ltd. and their team of independent technical specialists have been continuing their technical and environmental surveys since the Public Information Days in May 2019. These, along with the local community feedback, have played a key role in guiding the design of the Development.

One of the key principles of the design process was to reuse as much of the existing infrastructure on the Site as possible. This helps to minimise any effects upon the sensitive peatland habitats. Where this is not possible, any new infrastructure is carefully located to avoid the most sensitive areas. Design considerations include:

- Sensitivity of peatland habitat on site and wider area
- Watercourses within and around the site boundary
- Ground stability
- Archaeological features within the site
- Landscape sensitivities
- Presence of protected species
- Visual impact
- Proximity to residential properties
- Available wind resource

Turbine components will be delivered to Site via an established delivery route used previously for other windfarms in the area. Many of the upgrades required on the local road networks have previously been completed and any additional upgrades will be on the minor road, close to the Site. SPR has extensive experience of working with local residents to minimise disturbance and will produce a Traffic Management Plan in consultation with statutory consultees and the local community. We will also seek to utilise construction material from local sources where possible, minimising transportation impacts and providing a local economic benefit.

The final layout below has sought to maximise renewable energy generation from the site, whilst still minimising any resulting environmental effects. It also shows the extent of infrastructure being reused.



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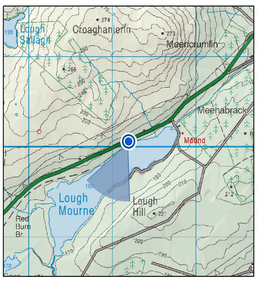
Barnesmore Windfarm Repowering

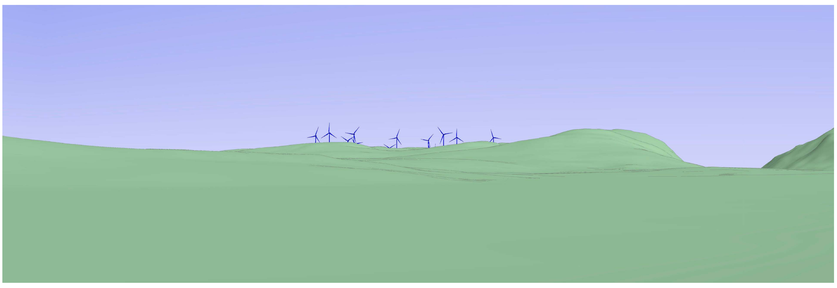
Landscape and Visual Amenity

Viewpoint 5 - View from N15 at Lough Mourne



Proposed View:

Wireline:



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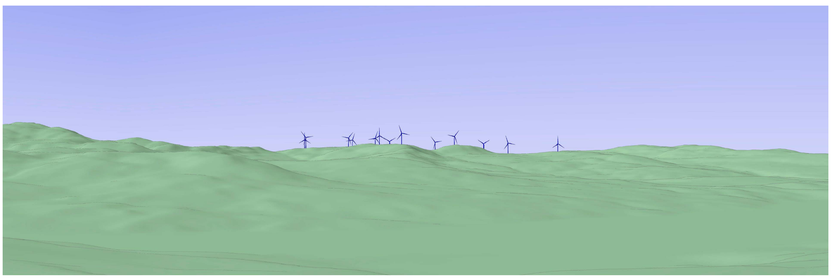
Barnesmore Windfarm Repowering

Landscape and Visual Amenity

Viewpoint 9 - Bluestack Way at Greenan

Proposed View:

Wireline:



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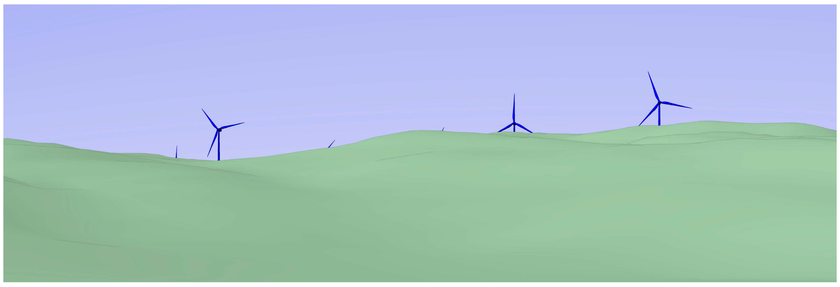
Barnesmore Windfarm Repowering

Landscape and Visual Amenity

Viewpoint 11 - N15 Northwest of Site

Proposed View:

Wireline:



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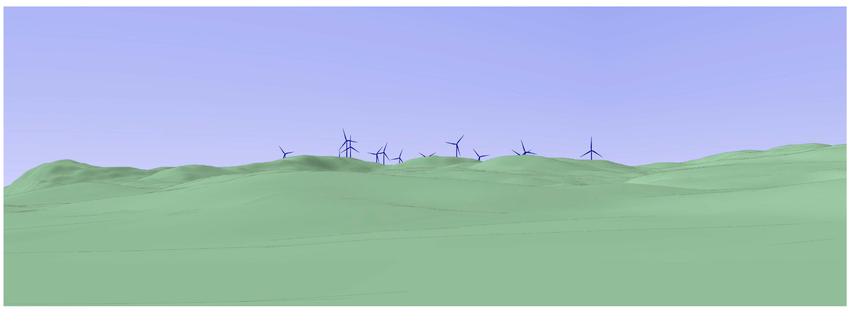
Landscape and Visual Amenity

Viewpoint 15 - View from N15, South West of Site

Proposed View:

Wireline:



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Community and Social Aspects

SPR, through the operation of the existing Barnesmore Windfarm, has been present in the local community for over 20 years and the repowering project gives us the opportunity to integrate and contribute further to the local community.

Community

In recent years SPR has voluntarily provided a package of community benefit on all new development projects to enable the local communities hosting a windfarm to share in the benefits. If consented, it is proposed that the Barnesmore Windfarm Repowering will offer an associated community benefit package and we are interested in hearing about the communities' aspirations and what benefits could be delivered.

SPR's operational windfarms have to date contributed more than the equivalent of €34 million of support towards community initiatives close to our windfarms. SPR's preferred approach is to empower local communities to determine how available funds are used to deliver the greatest benefit locally. This has resulted in a fantastic diversity of initiatives being delivered including:

- Contribution towards purchase and creation of the equivalent of €220,000 playpark for local and visiting children in rural village. The playpark includes zip lines, swings, a games arena and an outdoor classroom and open-air stage which are now used by the local primary school to run lessons outdoors.
- Contributions ranging from the equivalent of €3,000 to €30,000 towards the costs of local community minibuses, to assist local residents experiencing low mobility and/or social isolation in accessing shops, clubs, medical appointments and taking part in social activities.

What kind of benefits would you most like to see in your community?

Public Access

The sensitive peatland habitat around Barnesmore Windfarm is subject to legal protection through environmental designation.

There may be circumstances where certain individuals have legal rights of turbary which permit them to cut peat by hand from existing banks within the site for their own domestic use. SPR are keen to continue to work with individuals evidencing such turbary rights to ensure those rights are respected. SPR take our responsibility to third parties who have valid legal rights over our site seriously and no unauthorised activities, such as the commercial extraction of peat using machinery, will be permitted.

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Benefits

Onshore Wind in Ireland

As Irelands cheapest source of new energy, onshore wind contributes to reducing energy imports and electricity bills.

33 million tonnes of CO_2 emissions saved thanks to wind energy

€2.3 billion savings in the wholesale electricity market

4.1 GW of wind capacity in Ireland

It costs less than a euro per person per year to deploy wind energy in Ireland

Source: Baringa Cost-benefit analysis of wind energy in Ireland 2000 - 2020

Opportunities

Onshore wind is already an established industry in Ireland offering opportunities in a number of areas.

Irish companies that have established a firm base in onshore wind have gone on to win work in other regions. For example, SPR has employed several Irish firms such as Roadbridge (Construction) Ltd, who have taken on large contracts in the UK as a civil contractor using staff based in Ireland.

15 GW contributed from repowered onshore and offshore windfarms to 2050

4,000 Irish jobs currently dependent on the wind industry

€30 million paid in local council rates from windfarms every year

€15 billion the potential economic value of electricity generated by wind by 2050

Source: Baringa Cost-benefit analysis of wind energy in Ireland 2000 - 2020

During the many years of operation of Barnesmore Windfarm, SPR has employed the services of numerous local companies who support the operation and maintenance of the Site and the repowering will provide further opportunities for local companies to tender for work on the project, with 'meet the developer days' to introduce local suppliers to the project team.

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