

# FREASDAIL WIND FARM



## ABOUT THE PROJECT

RES is proposing a new project called Freasdail Wind Farm located on the Kintyre Peninsula at Freasdail Forest, near Whitehouse.

Our initial investigations looked at a 16 turbine layout but as a result of further studies we have concluded that 11 turbines would be better in this location. Additionally, we have also reduced the height of the turbines from 125 metres to 100 metres, as a result of in-depth landscape studies.

Depending on final turbine selection, Freasdail Wind Farm could be capable of generating up to 22 megawatts (MW) of clean electricity using the natural power of the wind. This is sufficient renewable energy equivalent to the average annual demand of almost 13,000 homes – or approximately 31% of the households in Argyll and Bute\*

We are committed to designing projects that generate reliable, renewable electricity while helping to minimise local impacts and maximising benefits for the Argyll and Bute economy.

RES team members will be happy to answer any questions you might have.

\*The homes equivalent has been calculated by taking the predicted annual electricity generation of the site (based on RES studies, Freasdail has a predicted site specific capacity factor of 30.1%) and dividing this by the annual average electricity consumption figures from the Department of Energy and Climate Change in 2010 (4370 kWh). The result has then been compared with National Records of Scotland Estimates of Households and Dwellings in Scotland, 2011.

[www.freasdail-windfarm.co.uk](http://www.freasdail-windfarm.co.uk)



Kelburn Wind Farm, North Ayrshire, Scotland

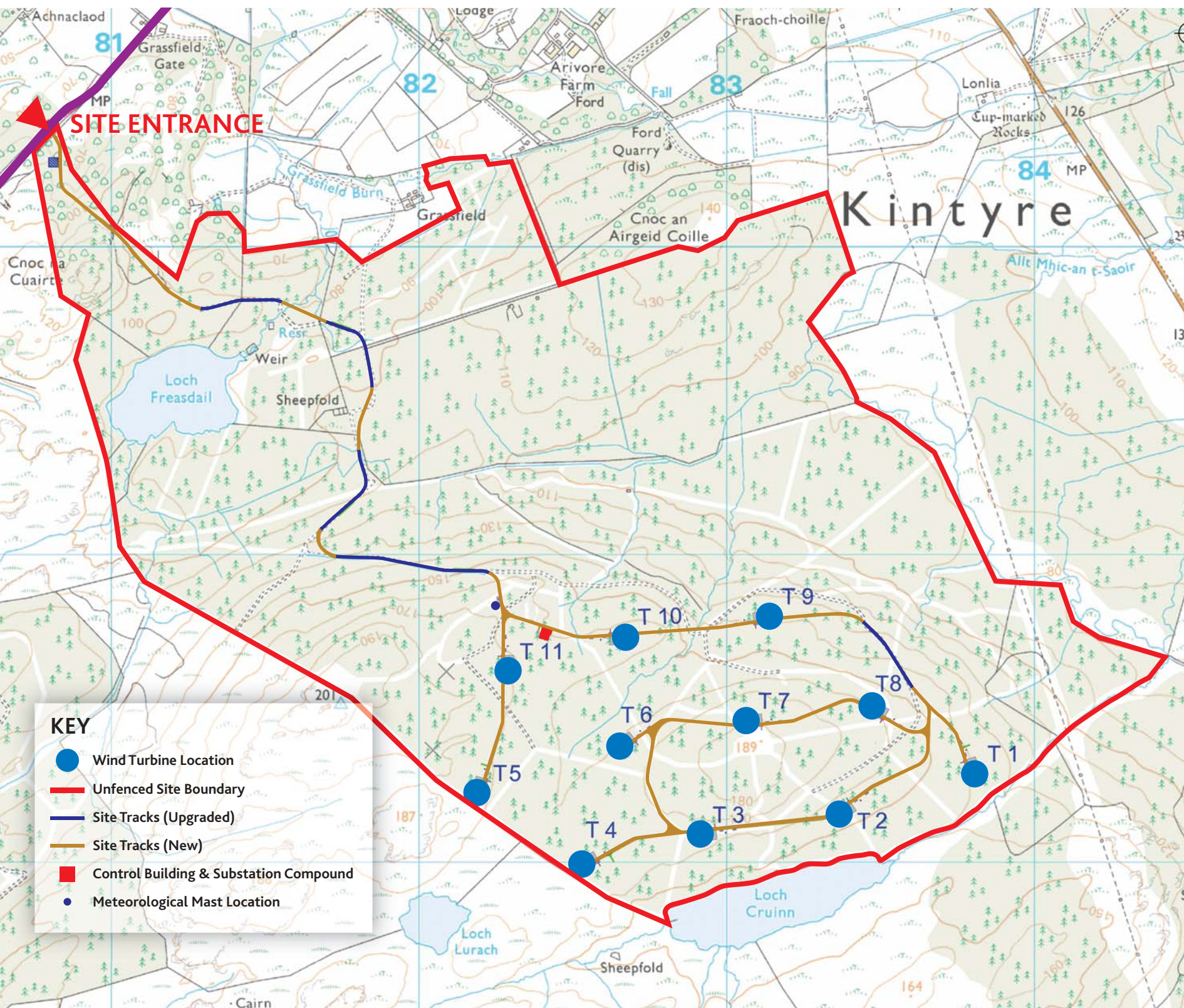
Turbines: Vestas, 2MW, height to tip of 100 metres.

Photo: RES

For illustrative purposes only



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## SITE LAYOUT

This map shows the proposed layout for Freasdail Wind Farm.

The map includes the entrance and access tracks, positions of the turbines and control room.

[www.freasdail-windfarm.co.uk](http://www.freasdail-windfarm.co.uk)



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## WHY CHOOSE THIS SITE?

- The area has suitable wind speeds for wind energy generation;
- There are no international or national landscape or nature designations existing on the site;
- There are no aviation constraints;
- The site can be accessed easily off the A83;
- The nearest inhabited house is over one and a half kilometres away from the nearest turbine.

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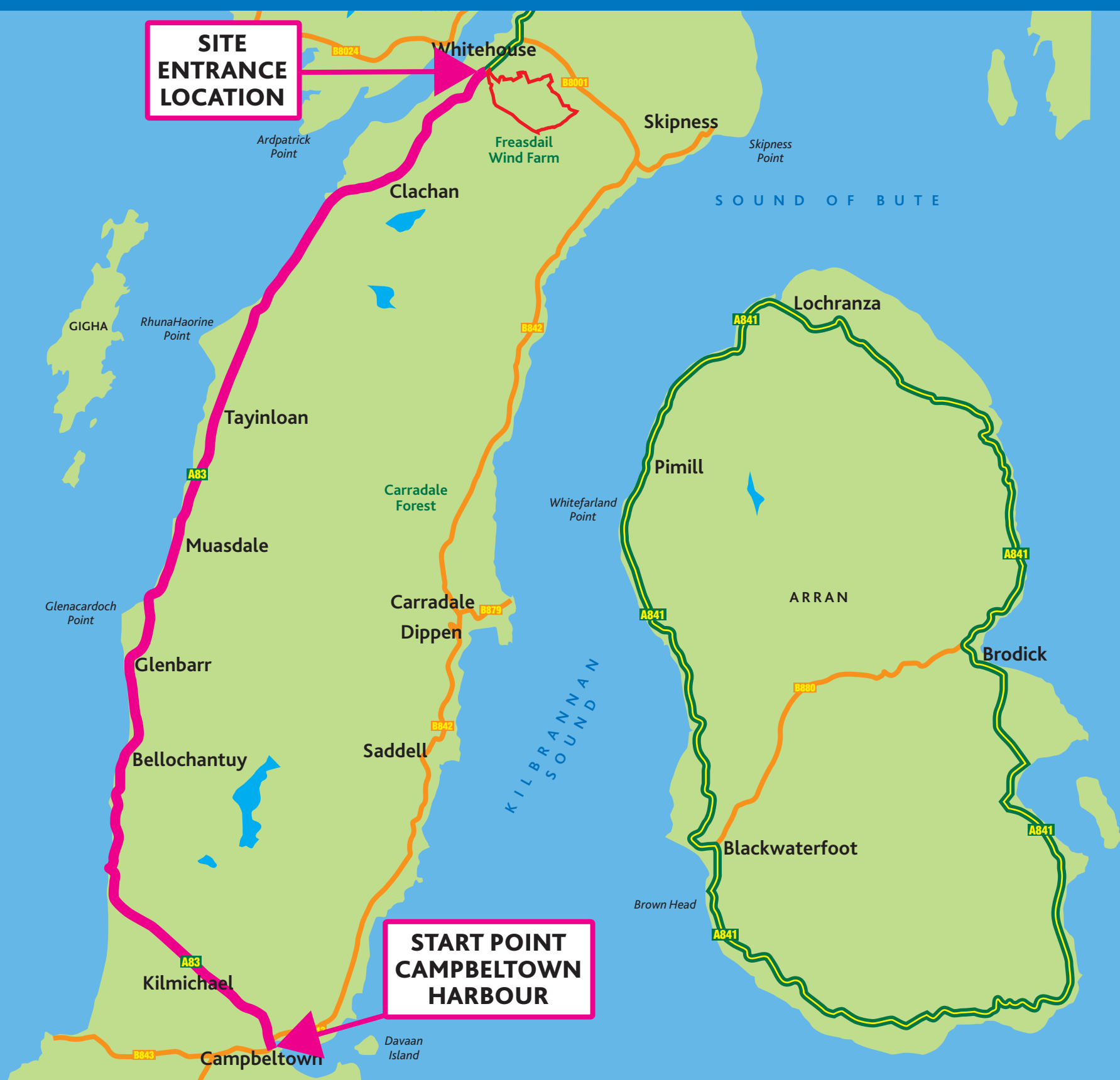
## TRANSPORT AND ACCESS

Access is one of the key considerations when selecting a potential wind farm site. Transporting people and materials generally involves only very minor additions to local traffic levels. Access to the wind farm site will be from a new access road from the A83. Abnormal loads (wind turbine parts) will travel from Campbeltown to the site via the A83. The transport assessment to the site will be available to view in the environmental statement when a planning submission is made later on in the year. We have discussed the site access in detail with the Roads Department at Argyll and Bute Council and local residents to ensure we have addressed any concerns people may have.

If the wind farm gets consent, a detailed Traffic Management Plan will be agreed with the Roads Department at Argyll and Bute Council and the police.

Wherever reasonably practicable, we will source construction materials such as stone and concrete from local sources so they will not have to travel far to reach the site.

The map below shows the route that abnormal loads, such as wind turbine parts, would take to get to the wind farm site.





## ENVIRONMENTAL STUDIES

As part of the planning process, RES is required to undertake an Environmental Impact Assessment (EIA). The purpose of an EIA is to investigate and alleviate any significant potential effects of a development on the natural, physical and human environment. This includes plants and animals, soil, water, air, climate, landscape and archaeology. The interaction between these factors and the development is examined and their significance assessed. Where necessary, mitigation measures to eliminate or reduce potential impacts are identified.

We looked at the potential effects of the wind farm on the landscape and visual amenity. This included identifying other wind farms in the area. We employed a Landscape Consultancy who made recommendations about the wind farm layout in relation to the surrounding area and how we could minimise the potential impact on the landscape.

We commissioned studies to assess how the construction and operation of the proposed wind farm might affect plant and animal life at the site. The site area was surveyed for rare plants or protected species, such as bats, otters, water vole, red squirrel, pine marten, fresh water pearl mussel, fish (salmon, trout and lamprey) and badgers. A one year programme was also undertaken to survey birds over the breeding and wintering seasons.

The studies found, amongst other birds, that barn owls and Scottish cross-bills were present near the site. If the wind farm is consented, RES will provide new boxes for the barn owls in suitable locations to help them breed.

Other surveys were carried out on site including, hydrology, forestry and archaeology.

The results of the surveys will be included in the environmental statement which will be submitted with the planning application later this year.



[www.freasdail-windfarm.co.uk](http://www.freasdail-windfarm.co.uk)

A barn owl in flight

For illustrative purposes only

## NOISE

Wind farm noise in many circumstances may be inaudible or effectively 'masked' by the background noise already present in the surrounding environment.

We take care to ensure noise levels from wind turbines are within recommended limits and comply with planning policy. At Freasdail Wind Farm we undertook a noise impact assessment in accordance with relevant guidance and in consultation with the Argyll and Bute Council Environmental Health Officer. We undertook noise surveys at an agreed selection of locations near the proposed wind farm. The results from these surveys enabled us to gain an understanding of the existing noise environment and feed into the design of the wind farm.

The proposed Freasdail Wind Farm was designed to ensure the wind turbines are at least one and a half kilometres away from the nearest property. As a result of the existing background noise levels and the distance from the nearest property, the proposed wind farm will comply with the relevant guidance on wind farm noise.

The best way to get an understanding of how a wind farm sounds is to visit one. Please let us know if you would be interested in a visit or if you would like to discuss the noise assessment in more detail.

[www.freasdail-windfarm.co.uk](http://www.freasdail-windfarm.co.uk)

### HOW LOUD IS WIND FARM NOISE?

Wind farm noise is, comparatively, generally low. This table is provided with planning policy documentation in Scotland.

Source/Activity	Indicative noise level dB (A)
Threshold of hearing	0
Rural night-time background	20-40
Quiet bedroom	35
Wind farm at 350 metres	35-45
Car at 40mph at 100 metres	55
Busy general office	60
Truck at 30mph at 100 metres	65
Pneumatic drill at 7 metres	95
Jet aircraft at 250 metres	105
Threshold of pain	140

PPS22 ("Planning for Renewable Energy - A Companion Guide to PPS22", Office of the Deputy Prime Minister, August 2004)

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