



Silton Wind Park

The site is located near the village of Silton, to the north west of Gillingham. The Silton Wind Park would be a six turbine project that would, assuming it performs like an average UK wind park, generate approximately 29 GWh/yr¹, equivalent to the electricity requirements of approximately 8,830 medium homes².

The Silton Wind Park would offset at least ten thousand tonnes of carbon dioxide per year³. The Silton Wind Park would repay the 'carbon debt' (i.e. the energy used during their life cycle - from production to maintenance and decommissioning) in approximately 3-12 months (compared to its expected lifetime of up to 30 years, or 360 months).

Project Details

Site address: nr Silton Village
Status: Currently at public consultation
Turbines: 6 Enercon E-82
Capacity: 12MW
Blade rotation: 6 - 19.5 rpm

Estimated electricity output

Generation: estimated 29 GWh per year¹.
Equivalent homes: 8,830²

Turbine Dimensions

Hub height: 79m
Rotor diameter: 82m
Blade length: 41m

Annual emissions savings

Carbon dioxide (CO₂): over ten thousand tonnes³

What size would the turbine be?

- The Silton Wind Park turbines would be 79m to the hub and 120m in height to the blade tip.

Does the electricity generated come directly to my home?

- No, the turbines would be connected to the existing grid system.

What wind speeds are needed to produce power?

- The proposed Silton Wind Park turbines are designed to generate electricity in wind speeds of between of 2.5 m/s (5.6 mph) up to 28 m/s (63 mph).

Would there be any danger if there were strong winds?

- The Silton Wind Park turbines are designed to shut down in the event of mean wind speeds of up to 28 m/s (63 mph) in order to protect the internal and external structure of the turbine.

What would happen if the turbine broke down?

- The Silton Wind Park turbines would be remotely controlled. In the event of any technical problems software inside the turbine would notify Ecotricity immediately via email. There would also be an information board on site with all relevant contact details in case of any problem.

How long would the turbine last?

- Turbines are designed to be operational for up to 30 years. They can be decommissioned quickly and easily at the end of their operational life span and the land can be returned to its original use.

Who has been consulted?

- To date, Ecotricity has consulted many bodies about the proposed development, some are listed below. Consultations are ongoing and anybody can comment on the planning application by writing to North Dorset District Council.

- The Environment Agency - North Dorset District Council - Natural England - RSPB - Ofcom - JRC - CSS - Orange - T-Mobile - BT - BBC - Dorset County Council - MOD

How noisy would the wind turbine be?

- Using background noise surveys and computer modelling we are able to accurately calculate noise levels in order to ensure that the project will comply with standards set out in Government guidelines. Potential noise problems are minimised through careful site selection. We ensure that our sites are located at a distance from properties where any noise does not exceed recommended noise limits. Typically this means that turbines are not placed closer than 400m to residential properties, but this depends on background levels and may be sited closer. The best measure of the noise produced is to go and actually listen to one of our turbines.

Would the construction of a new turbine spoil the landscape?

- The proposed development is not expected to have significant impacts on any of the nearby Conservation Areas or their settings, on nearby Scheduled Ancient Monuments or their settings, or on nearby Listed Buildings and their settings.

I have heard about 'shadow flicker', would this affect me?

- Shadow flicker occurs under a special set of conditions when the sun passes behind the hub of a wind turbine and casts a shadow. When the blades rotate, shadows pass over the same point causing an effect called 'shadow flicker'. The seasonal timing and duration of this effect can be accurately calculated using computer software. By using this software Ecotricity chooses the sites and layouts for wind parks which minimise the risk of shadow flicker occurring at residential properties. In the unlikely event that shadow flicker does affect properties, we will undertake measures to rectify the problem.

Ecotricity would monitor the situation carefully and if local residents' homes are affected, an independent technical expert would be brought in to assess the impact and determine what mitigation strategy would be best to rectify the issue.

How would the lorries gain access to the site during the construction phase?

- Access on to the proposed site at Silton is via the A303 and B3081 to the proposed location. A survey undertaken by Ecotricity and Enercon has confirmed that all the roads along the proposed route are wide enough (wider than 4m) to deliver the turbine components without any major permanent improvements being made.

The logo for Ecotricity, featuring the word "ecotricity" in a bold, lowercase, sans-serif font. The letters are black and have a slightly irregular, hand-drawn appearance.

The transportation would be timed to avoid rush hour traffic within the area.

Why not build offshore?

- The main problem is that it costs more money. So that we can continue supplying our customers with energy at the same cost as their regional supplier we need to keep our installation costs to a minimum. However, in order to meet our energy needs (and targets) in a way that minimises the chances of dangerous climate change, all forms of renewable energy will be required including solar, hydro and onshore and offshore wind.

Where can I view copies of the application?

- Copies of the application will be on display at North Dorset District Council, Salisbury Road, Blandford Forum for an 8 week period after submission.

Details will be available on the Ecotricity website (www.ecotricity.co.uk/projects/silton). You can send any questions via email to silton@ecotricity.co.uk. Or by post to:

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The Planning Department
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Please contact Ecotricity if you wish to buy a copy of the main application documents. Charges will be as follows:

- Paper copy £150
- CD copy £35

Notes:

1 - This figure is based on the average performance (capacity factor) between 2002 and 2006 of UK onshore wind energy projects deduced from the onshore wind load factors on an unchanged configuration basis in table 7.4 of the Digest of UK Energy Statistics 2007, from the Department of Business, Enterprise and Regulatory Reform (BERR, formerly DTI). Please note that the actual performance of the Silton Wind Park may vary.

2 - This figure is based on a medium UK domestic electricity consumption of 3,300kWh/pa used by OFGEM and Energywatch. Future changes in average domestic electricity consumption means this figure may change over time.

3 - This figure is based on an assumption that the proposal would offset only gas-fired electricity generation and is therefore likely to be conservative; the offset figure is derived from the BERR document Digest of UK Energy Statistics 2007, table 5C at 101 tonnes of carbon per GWh electricity supplied (equivalent to about 370gCO₂/kWh) for gas-fired generation. However, it should be noted that future changes in the power generating mix and fuel costs in the UK over the life of the wind farm means this figure may change over time.