



Proposed Single Wind Turbine on Land at Wreys Barton, Lewdown, Devon.

Community Consultation

As a local resident, we want to ensure you are as fully informed as possible about our proposal to erect a **single medium scale** wind turbine on land at Wreys Barton. This is **not** a proposal for a wind farm. Based on a 23% capacity factor of a 500kW wind turbine, calculations show that it will generate enough green energy for around 236 homes (based on the UK average consumption). However, the manufacturer's power curve indicates energy production would be higher. Based on the installed capacity and wind speed at this site the turbine will generate enough green energy to supply 375 homes (based on UK average consumption).

We realise that you may have questions about our proposal, about us and about wind energy in general. We have tried to answer as many as possible of these below.

The Proposed Wind Turbine

- Medium Scale Wind Turbine
- 500 Kwatt wind turbine
- 50m Hub height
- 77m Tip height

Who are Murex Energy?

Murex are based in the South West specialising in renewable energy projects. We aim to utilise the natural resources of the site, i.e. high wind speed, topography etc. to generate significant renewable electricity with minimal impact on the local environment. This is achieved by using a well proven wind turbine that has all the research and development from a market leading company without the impact of a large turbine.

Farm Diversification

Farm diversification is key for the long term survival of family farms. The revenue from the proposed turbine will provide a diversified income for the farm. The



landscape character we enjoy today has been developed by generations of farmers managing the land. This proposed project will help protect the viability of the farm enabling the farmer to continue stewardship of the land.

Local community benefit

The proposed development would provide community benefit through three specific areas and they are as follows:

1. A local community benefit fund
2. A local share offer and investment opportunity
3. A community service package (index linked with RPI) for a set period.

Why here?

As a local resident you will know that the South West is a windy place – national wind speed data shows that the wind turbine proposed at this location will work well. Local generation produces the electricity for local use and improves efficiency without the voltage drops and losses that occur when electricity is pumped down the national grid from power stations. The district network operator, Western Power Distribution, have confirmed there is sufficient capacity and therefore demand for electricity in the local area.

Why not put wind turbines offshore?

Yes, we need to be doing this too. However, the downside is that putting wind turbines offshore costs 2-3 times as much as on land, and that is a cost that would get passed on to all of us through our bills. It's about striking a balance – Britain has always had an energy mix, and will always need one.

Will I be able to hear the turbine?

Modern wind turbines are quiet. The proposed wind turbine has a direct drive, meaning that it has no gearbox in the hub which reduces any potential noise even further.

What environmental work have you done?

As part of the site assessment and detailed feasibility study the turbine has been sited in line with current planning policies. We have carried out an extensive ecological survey, which looks at all aspects of the natural environment in and around the site.

Why is it that I don't always see wind turbines turning?

Modern turbines turn for around 95% of the time. The turbine proposed for this site will work in anything from a light breeze (2.5 to 3 m/s) to a full gale (28 to 34 m/s). In hurricane speeds, they are able to automatically shut themselves off safely.

I've heard that wind turbines use more energy to make than they will ever generate?

This is another common myth. The proposed wind turbine typically 'pays back' the energy used to make it in 6-18 months, depending on the wind speed of the site. For the rest of its 25 year life, it is 'carbon positive' generating energy that would otherwise have to be made from non-renewable sources.

Do wind turbines affect aircraft radar?

We have to demonstrate that this could not happen before permission is given. We consult with the MOD and NATS at an early stage of the feasibility process.

I've read that wind energy is only viable because it is subsidised?

It is a common theme that some national newspapers and protest groups like to repeat. You might be surprised to discover that many forms of energy receive support in one form or another.

The Feed in Tariff (FIT) for renewable energy (such as wind, solar and hydro power) is designed to stimulate investment in them. This is because they are comparatively expensive to build in the first place, but then much cheaper to run because their fuel i.e. the wind is free for their entire lifetime, unlike coal, gas or

nuclear power stations which are expensive to run and decommission.

Operators only received FIT for the energy they actually generate, not simply for building. So, it is vital to put them where they can be made to work as hard as possible

I've heard of something called 'Shadow Flicker' – what is this?

Shadow Flicker is a specific, measurable, predictable and very rare occurrence when a number of factors all occur at the same time, such as a low winter sun in a specific position in the sky. It is a condition that causes a shadow flickering effect when viewed from nearby through a dark narrow aperture such as a kitchen window. We will carry out assessments of potential shadow flicker effects on any property within 10x rotor diameter of the proposed turbine. The turbine technology in any event has the ability to mitigate any effects.

What about transport/access?

Using wind as the fuel means that, unlike other power sources, there is no need for trucks coming and going. We will use the existing roads during the build, with a small new access track in the field to the turbine site.

Will there be more electricity poles or pylons?

There is unlikely to be any need to erect more electricity poles or pylons as all new cables will be laid underground. One of the major advantages of medium wind turbines is that they use the current local grid network with minor upgrades to cables and switchgears on existing poles and substations.

What happens next?

We are currently finalising the necessary surveys and compiling reports and documentation for the planning application. The aim of this public consultation is to assimilate comments and concerns made by local people and make any adjustments to the design of the proposed scheme to accommodate the issues raised.

We hope this answers many of your questions. A feedback form is attached, which you can email back to Murex at:

info@murexenergy.co.uk

or alternatively complete the feedback form and return by post to:

Murex Energy Ltd

PO Box 185
Tiverton
EX16 0DE

Deadline for responses: 14th September 2014.