



Illustration of possible view of Dulater Hill Wind Park from Laird's House

Update on the Proposed Dulater Hill Wind Park

We have completed the environmental studies and will be submitting a planning application to the Scottish Government in June 2014.

About the site

The Dulater Hill Wind Park proposal is for up to 17 wind turbines on agricultural grazing land north of the A923 close to the village of Butterstone, Perth and Kinross. Based on the average wind speeds at the site, calculations suggest that the turbines will generate enough electricity to power the equivalent of 25,219 Scottish Homes or 19,563 local homes; around 30% of the homes in Perth and Kinross.

About Ecotricity

Since its inception 18 years ago, Ecotricity has been involved in pioneering wind energy projects across the UK, including building London's first wind turbines and the first multi-megawatt wind turbine in the UK. To date we have built 55 turbines. We operate a unique model, using our customers' bills to fund new sources of Green Energy.

We supply the homes and businesses of our 120,000 UK customers with Green Electricity and Green Gas. But we work differently from

other energy companies because we're 'not-for-dividend' and have no outside shareholders. So instead of paying dividends to investors, we take the money our customers spend on their electricity and gas bills and turn it into new sources of green energy, such as this wind park – we call this 'turning bills into mills'. It's all part of our mission to change the way energy is made in Britain, and we're the only energy company partnered with Oxfam, Christian Aid, and the Royal Society for the Protection of Birds (RSPB), among many other good causes.

Electricity from the wind

Wind energy is the most proven and cost-effective source of green energy there is and the costs have fallen so much that the true cost of making wind energy is now comparable with other sources such as nuclear, coal and gas. Yet, right now we're lagging behind our legal renewable energy targets to help cut the carbon emissions that cause climate change – by building windmills we can make Britain energy independent and protect ourselves from the ever increasing cost of imported gas and coal.

What environmental work have you done?

We have carried out extensive environmental assessments, which look at all aspects of the natural environment in and around the site. This includes wildlife and bird studies, landscape and visual impacts, noise, shadow flicker, hydrology, archaeology and heritage in consultation with statutory bodies including; Perth and Kinross Council (PKC), the Scottish Environment Protection Agency (SEPA) and Scottish Natural Heritage (SNH). All of this information has gone into the Environmental Statement (ES) that will be used by the Scottish Government when making the final decision.

What happens next?

The Scottish Government are inviting comments on the proposal from statutory organisations, other consultees and the general public.

This is an opportunity for residents and statutory bodies to submit their comments on the application. All comments will then be considered by the Scottish Government when they make their decision.

Hard copies of the ES are viewable at the Birnam Arts and Conference Centre (PH8 ODS), Perth and Kinross Council (PH11 5GD) and Blairgowrie Library (PH10 6AW). Alternatively you can view the documents online at www.ecotricity.co.uk/dulater-hill.

When will a decision be made?

The Scottish Government rather than local government, will make the decision on this proposal because the wind farm exceeds 50MW in capacity. Following this is the consultation period: this is where the Scottish Government will invite comments for a minimum of 28 days on the application. Perth and Kinross Council has 4 months to provide their consultation and comment on which – along with all other information – the Scottish Government will base their decision.

Vital Statistics

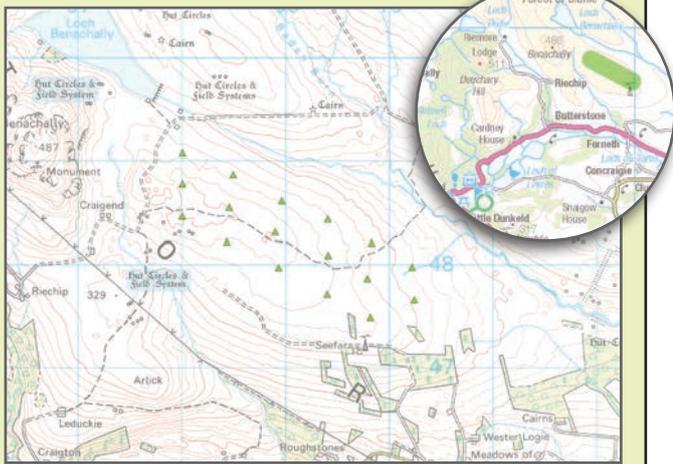
Number of Turbines: 17
Maximum Height to Upper Tip: 125m
Maximum Generating Capacity: 57.8MW

Expected Green Electricity Generated (per year):
 115 million units (kWh)
Expected Equivalent Homes Powered (per year):
 Scottish Homes: 25,219
 Local Homes: 19,563

Expected Tonnes of CO₂ Saved (per year): 55,752
Expected Carbon Payback: 1.5 years

Site Location

North of the A923, near Butterstone



Map indicating the location of the proposed windmills (shown as a green triangles)

FAQs

What about other energy sources, such as nuclear?

All energy sources have risks and costs. Nuclear power stations cost around £5 billion each and take around 10 years to build. The two new nuclear power stations being built in Europe are currently running behind schedule with Olkiluoto, Finland an estimated 7-9 years behind schedule. Tidal, wave and biomass energy sources are all promising, but are still emerging technologies compared with wind, whilst offshore wind parks cost around twice as much as their onshore counterparts.

It's about striking a balance – Britain has always had a mix of energy generation and will always need one. Onshore wind is the most efficient, tested and cost-effective renewable technology available to us today.

Will I be able to hear them?

Modern windmills are quieter than you might expect and we carry out extensive noise modelling to accurately predict likely sound levels. This includes carrying out local noise measurements at nearby residential properties. A noise limit via a planning condition would then be set by the Scottish Government based upon the worst case scenario to ensure the windmills operate within strict noise limits and that nearby residents aren't disturbed.

I've read that wind turbines kill birds – is this true?

A Centre for Sustainable Energy (CSE) report in 2011 found that across the USA and Europe that bird deaths caused by collisions with wind turbines make up, on average, less than 1 incident out of every 10,000 deaths from all causes. Millions more are killed by overhead power lines, cars, domestic cats and fossil fuel power plants. The RSPB supports well-placed wind parks as they work to protect our natural environment from climate change.

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

Our wind farms generate electricity 80-85% of the time. Modern windmills such as those proposed for Dulater Hill work in anything from a light breeze (4 m/s) to a full gale (25 m/s). In hurricane speeds, they are able to automatically shut themselves off safely, to prevent any damage from occurring.

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

This is a common myth. A 2011 report indicates that the average wind farm is expected to generate at least 20-25 times the energy required in its manufacture and installation over its lifetime. By comparison conventional fossil fuel power stations have a much lower energy payback as they require constant fuel imports from abroad.

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

Shadow flicker is a rare occurrence when the sun passes behind the rotor of a wind turbine and casts a shadow that flickers on and off as the blades rotate. Shadow flicker is a phenomenon that occurs under very precise conditions, at certain times of year during specific times of day and it can only occur inside buildings where the flicker appears through a narrow aperture such as a window opening. Windmills will be located carefully to ensure people aren't affected and the seasonal timing and duration of this effect can now be accurately calculated using computer software. So in the rare event that flicker does appear the turbines can be programmed to automatically shut down.

What about transport and access?

Using wind as fuel means that, unlike other power sources, there's no need for trucks coming and going delivering fossil fuels. The preferred delivery route has been judged to minimise traffic disruption and restrict this to the construction period. Traffic management will be undertaken throughout the construction phase guided by a Traffic Management Plan that will be prepared in cooperation with PKC. The proposed route for access is from the A9 at Rotmell junction, along the 'Old A9' (C502) via the A923 (Dunkeld to Blairgowrie) road and onto to site via the existing access point at Old Laighwood.

Is wind energy only viable because it is subsidised?

You might be surprised to discover that all forms of energy receive support in one form or another. For instance, taxpayers are picking up the bill for cleaning up the toxic waste from our last generation of nuclear power stations, currently estimated to have cost us more than £56 billion. While gas and oil producers can get significant tax reliefs on profits called field allowances for up to 5 years at a 62% relief.

The Renewables Obligation (RO) that supports green energy (such as wind, solar and hydro power) is designed to balance the playing field, because they are comparatively expensive to build in the first place, but then much cheaper to run because their fuel (e.g. the wind) is free for their entire lifetime, unlike coal, gas or nuclear.

Operators only receive the Renewable Obligation Certificates (ROCs) subsidy for the energy they make. The latest annual Ofgem report, in February 2014, stated that; in 2012-13, the average household had just £6.78 added to their bill to support onshore wind. By comparison the rising cost of imported gas added £120 to the average household bill, between 2010 and 2011.

Contracts for Difference (CFD) will be introduced in 2014 under the UK's Energy Market Reform. CFDs will initially be an alternative to ROCs until ROCs are phased out completely in 2017 as the Government's chief mechanism in stimulating investment in low carbon renewables technologies.

How will the community benefit?

Ecotricity is all about sustainability and energy independence and we want these benefits to be enjoyed by communities that host our wind parks, that's why we are investing £5,000 (index-linked) per MW per year to a local Green Britain Foundation fund. This will be available to fund local sustainability projects through our partner the Green Britain Foundation who can assist the community in putting together a site specific community benefit package. Further information on the community benefit package will be made available as the project develops. For the latest information visit our website at: www.ecotricity.com/dulater-community-benefits or contact us by:

Email: dulaterhillcommunitybenefit@ecotricity.co.uk
Phone: **01463 223377**.

Will the turbines affect the price of my house?

Despite some media coverage that presumes wind farms have a negative impact on local house prices, there is no conclusive evidence to suggest this is the case. Research published both in the UK and abroad found no conclusive evidence that wind farms consistently, measurably or significantly affect house prices.

In fact recent research undertaken by Renewable UK studied 82,000 property transactions over the last 18 years and found that "there is no evidence to suggest that there was a long-term negative impact on house prices, either during the period of construction or post completion of the wind farms."

More Information

Please come and see us at our Public Exhibition where we will be presenting our proposal and answering questions from local residents:

Venue: **Birnam Arts and Conference Centre**
Date: **Monday the 30th of June 2014**
Time: **Public Exhibition – 1PM-8PM**
Presentation & Q&A's – 7PM-8PM

Further information and details of the site's progression are available at: www.ecotricity.co.uk/dulater-hill

If you have any questions please contact the Development Team at:
Email: dulaterhill@ecotricity.co.uk
Call: **01453 769334**

Every effort has been made to ensure that the information here is accurate at the time of going to print.