

# The Beacon Wind Generator

## A status up-date 14<sup>th</sup> April 2015



### Background

A local family, the Renfree's, who have farmed their land in this Parish, for over 45 years and for 4 generations, are used to working with the natural elements to rear cattle and sheep. They have been preparing to submit a planning application to Cornwall Council, for a single wind generator, on The Beacon, for some time now, so that they can harvest the wind, another natural element, as it flows over their land. Some issues have occurred as the project has progressed, and we have been resolving them along the way. As we have progressed & resolved the issues, all it has done, is confirm the viability of a wind turbine on the site and so we submitted a planning application in February this year.

### The Project Proposed Now

The wind generator we are now looking at will be a typical modern, 3-bladed design which is smaller in a number of ways than the original wind generator proposed, with a rated capacity drop from 500kW to a maximum **250kW** rating. There has been a meaningful hub height reduction from 50m to **35m** and a blade length reduction from 26m to **16m** which means that there is a significant overall height reduction from 81m to **51m**, to the tip of the blade when vertical. So, what does all this mean? It means that our application for a smaller wind generator will have a greatly reduced impact on the landscape and surrounding area than the wind generator we proposed originally.

### Climate Change and Policy

The UK Government believes climate change is one of the gravest threats we face and that **urgent action** at home and abroad is required. This was reinforced unequivocally, in March 2014, by the IPCC, (Intergovernmental Panel for Climate Change), in their press release, which stated that **! ! ! !** **between 2000 & 2010, than in each ! ! !!**



In response to the IPCC 5th Assessment Report, (Working Group 2) , Secretary of State for Energy and Climate Change, Edward Davey said then: "This report represents the **most comprehensive look at the impacts of climate change ever written**" ..... and he went on to say that; "We are investing in low carbon and energy efficiency technologies, with an **increased focus on home-grown renewables,**" .... and "This evidence strengthens the case for early action in the UK and around the world to lessen the significant risks posed by climate change. **We cannot afford to wait.**"



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## A new idea with historical links

Stephen & Gwen Renfree, encouraged by the principals behind the legislation, believe that they are in a position to farm the wind using a single wind generator on The Beacon and feed the electricity produced into the local network and thus help to secure the future of their farm.

**So what does a 250kW** rating mean? If the generator we are currently proposing were operating and producing at its rated output it could provide, approximately all the energy for the following;

**83 x 3kW** electric kettles **ALL** boiling water, at the same time, or **5,000** ordinary GU10 (50W) light bulbs (consumption for a typical laptop is equivalent), at the same time, or **250** electric mowers/drills which consume about 1kW (1000W) each, at the same time - **but that would be very noisy!**



The proposed machine is expected to produce on average over **570,000\*kWh** per year, which is comparable to the annual average domestic consumption of **121 houses\*\***. The latest published Census Key Statistics (2001) from Office of National Statistics, for the Parish of Quethiock, states that there's a population of **about 456, living in 167 houses**. So the proposed wind generator, which will comply with International Standards, will generate enough electricity to fulfil the **estimated annual consumption of about 70% of all the domestic households for the Parish of Quethiock**.

## Studies and Planning

So, we carried out a revised screening opinion request and had a pre-application meeting with the case officer in the summer of 2014 and as a result we revised our technical and environmental studies, prior to submitting our latest proposal for a single wind generator Cornwall Council. Should Stephen & Gwen be successful with their application they are open to discussions about kick-starting worthwhile local projects. They hope that, the residents of the parish will support the application when Cornwall Council make their decision. If you have any questions about the project please contact me within 21 days by mail or by e-mail as below and as the agent I will answer them as quickly as possible.

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\* A kWh is the "unit of electricity" that appears on all our electricity bills

\*\* The data on homes equivalent is based on an estimated annual household energy consumption of 4,700kWhrs - reference Renewable UK web site