

# Galsworthy Wind Park

# ecotricity

**We are proposing to submit a planning application to construct four turbines on land at Galsworthy Farm, between the villages of Stibb Cross and Bulkworthy, near Bideford, Devon.**

The plan is to build four modern wind turbines on agricultural land, in the district of Torridge. These turbines would, it is estimated, generate clean electricity equivalent to that used by approximately 6,770 typical homes<sup>1</sup>.

The UK is changing its energy policy to address global warming and concerns about importing too much of our energy; the benefits of this project include:

- Reducing emissions of carbon dioxide – the main greenhouse gas;
- using a natural, local resource – the wind; and
- bringing additional investment to the area during construction.



## **Proposed project details**

Site address: **Galsworthy Farm, between Stibb Cross & Bulkworthy**  
Status: **Currently at Public Consultation**  
Turbines: **4**  
Capacity: **9.2MW** (4 x Enercon E-70, 2.3MW wind turbines are proposed)  
Blade rotation: **up to 19.5rpm** (depending on wind speed)

## **Estimated electricity output**

Generation: Ecotricity estimates that a wind farm of this size located in the UK would typically generate **about 22.3 million units per year<sup>2</sup>**  
Equivalent to: **the annual electricity demand of approximately 6,770 typical homes<sup>1</sup>**

## **Proposed turbine dimensions:**

Hub height: **64m**  
Rotor diameter: **71m**  
Blade length: **35m**

## **Estimated emissions savings**

Carbon dioxide (CO<sub>2</sub>): **at least 8,266 tonnes per year<sup>3</sup>**  
In addition, emissions of the acid rain gases sulphur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) would be reduced.

<sup>1</sup> 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.

<sup>2</sup> This figure is based on the average performance (capacity factor) between 2002 and 2006 of UK onshore wind park performance 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 Galsworthy Wind Park may vary.

<sup>3</sup> This figure is based on an assumption that the proposal would offset only gas-fired electricity generation and is therefore conservative; the offset figure is derived from the BERR document Digest of UK Energy Statistics 2007, table 5C @ 370gCO<sub>2</sub>/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.