



Case study Highfield Productions Modbury

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DEVON



Introduction

Jeff Booth is the Managing Director of Highfield Productions, a professional TV production company based at Jeff's home in Modbury. Jeff wanted to show his commitment to reducing his environmental footprint and take advantage of his wind resource. The site is just outside the South Devon AONB on a large South West facing hill, it has a good wind speed and is clear of any trees.

Costs and benefits

- Annual electricity generation is at least 6600 kWh and the system is expected to save 7 tonnes of carbon dioxide pa.
- The turbine will generate between £1500 and £2000 per annum, supplying more than 50% of Highfield Production's electricity needs.
- The whole system cost £21,000 to install, Jeff received a grants from the Low Carbon Buildings Programme and should expect a payback period of 11-15 years.

Project development

- Segen visited the site and using the NOABL wind database and the data that Jeff had collected from his own roof mounted anemometer, suggested installing a 5 kW turbine on a 12m mast. They considered using a 9m mast, but the benefits of extra power production through using the higher mast would outweigh the extra cost involved.
- After providing the South Hams planners with photos and a site visit, Jeff was asked to erect a 12m mast to show what effect the turbine would have on the local area. Jeff placed a red flag made from his Grandma's bloomers on top of the pole to give a better indication of the turbine's visibility. During this time there were several objections to his application from some of the local residents, however, there was also a positive response from other local residents and South Hams District Council awarded him planning permission for a 5 kW turbine on a 12m mast.

How the system works

The installation in June 2007 took three days due to lightning storms which made it unsafe to work with a 12m metal mast. Now it is up and running the turbine generates electricity which is mostly used on site, with the excess fed back into the grid.

It was thought that the turbine might require a three phase electricity supply costing £5-10,000. Fortunately, after a visit from Western Power Distribution, the current single phase supply was deemed adequate to cope with the amount of electricity exported.

Technical details

Turbine	5kW Iskra
Inverters	2 x Windy Boy inverters
Other equipment	ROC meter, import-export electricity meter, armoured cable from turbine to office
Installer	Segen

Wider benefits

In the current climate of environmental awareness people are often looking for ways to reduce their carbon footprint, having a wind turbine may encourage clients to choose Highfield Productions over another company. Now Highfield Productions has become one of the first TV studios to generate more electricity than it required.

Further information

www.segen.co.uk

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For independent advice and support

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