

Case Study – Large Scale Wind

Strath of Brydock Wind Cluster



Green Cat Renewables

Client: A J Duncan

Green Cat Renewables provided technical support from initial site identification, feasibility assessment, environmental assessment, planning support, detailed design, procurement and construction project management. This is a 3 turbine project which was constructed in 2009.

The key development issues associated with this project were;

- Historic Buildings nearby
- Grid connection
- Landscape and Visual Impact
- Noise

However, through a process of thorough consultation and considerate project design a scheme that was acceptable to all of the consultees was developed.

The key requirements for a project of this nature are:

- Open areas of land heavily exposed to the wind
- Proximity to the 33kV electrical supply
- No special environmental classification
- No special restrictions on use of the land
- Good access from public roads

Even large modern wind turbines such as this can be accommodated in a relatively small land area, although they should be separated by at least 5 rotor diameters (~250m) from each other and a greater distance from third party dwellings (~500m).

Leasing land to commercial wind farm developers can bring in a rent of around £10,000 per MW per annum. However, if a farmer develops the project himself then the income per turbine can be many times this level. A project of this sort will generate an income for up to 25 years. At present, electricity generated by wind power attracts not only a base level electricity price, but various enhancements due to it being a clean renewable source, giving a total price per unit of renewable electricity of between 9.5p/kWh and 23.5p/kWh depending upon size of scheme.



Key Data

No. Turbines: 3

Turbine type: Enercon E70 (2.3MW)

Date Work Commenced: Feb 2006

Date of First Generation: July 2009

Annual Electricity production: ~21,000MWh

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