

Case Study 7 – Wind Energy Study

Client: Confidential

Project: Wind Energy Study

Project Outline:

The threat of global warming, together with international agreements on sustainable development, has led to significant interest in the potential for using renewable energy as a source of power. Amongst relevant declarations, the UK Government has made a commitment to ensure that 10% of energy production will be from renewable sources by 2010.

Of the potential sources, wind power is one of several options that is technically proven as a means of assisting in this objective and within continental Europe (particularly in Spain, Denmark and Germany) wind power has been widely adopted with several thousand MW of installed capacity.

The UK has been slower to adopt such technology. However, our client, who owns significant areas of potentially suitable land, was interested in understanding the key issues associated with generating power from the wind and requested Renewable Energy Consultants to conduct a pre-feasibility study to review available information and to determine if further work was justified.

Renewable Energy Consultants Role:

Based on the available meteorological data, Renewable Energy Consultants estimated the likely annual power production that could be obtained from typical wind turbines located on the client's land.

Using this information, together with current equipment costs, and 'rules of thumb' concerning maintenance and installation expenses, Renewable Energy Consultants calculated the Net Present Value of the project for a range of investment returns.

This then enabled Renewable Energy Consultants to provide indicative generating costs for the project, compare them with current electricity costs and comment on likely developments in both the wind turbine and electricity trading markets.