

Research Project, 2009/10.

Site Assessment for Wind Energy at UCD

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Climate change is the greatest environmental challenge facing humankind in the twenty-first century. The Irish Government is taking steps to avert the dangerous consequences of climate change. The Government has recently committed, in its Energy White Paper, to a target of 33% of all electricity to be derived from renewable energy sources by 2020, with wind energy providing a pivotal contribution to that target. But what, exactly, is involved in setting up a wind farm?

This project will produce a report to answer the question "Should UCD install a wind turbine to generate renewable electricity?". This will involve taking actual wind speed measurements from a site at UCD, as well as using existing information to answer such questions as:

- What is the recommend wind speed requirement for a wind turbine?
- How can I find out the wind speed available in UCD?
- What else is involved in constructing a wind turbine?
- What would the impact of a wind turbine on the local environment be?
- What kind of costs would be involved?
- What would the benefits of the project be?

The student will summarize his/her findings in a report.

References:

Sustainable Energy Ireland:

http://www.sei.ie/Renewables/Wind_Energy

http://www.sei.ie/Renewables/Wind_Energy/Wind_Maps

Irish Wind Energy Association (IWEA):

<http://www.iwea.com>