

**B|B|C**

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## **Wind farm efficiency queried by John Muir Trust study**



The study has challenged industry assertions about the output of wind farms

Wind farms are much less efficient than claimed, producing below 10% of capacity for more than a third of the time, according to a new report.

The analysis also suggested output was low during the times of highest demand.

The report, supported by conservation charity the John Muir Trust, concluded turbines "cannot be relied upon" to produce significant levels of power generation.

However, industry representatives said they had "no confidence" in the data.

The research, carried out by Stuart Young Consulting, analysed electricity generated from UK wind farms between November 2008 to December 2010

Statements made by the wind industry and government agencies commonly assert that wind turbines will generate on average 30% of their rated capacity over a year, it said.

But the research found wind generation was below 20% of capacity more than half the time and below 10% of capacity over one third of the time.

### **‘Different manner’**

It also challenged industry claims that periods of widespread low wind were "infrequent".

The average frequency and duration of a "low wind event" was once every 6.38 days for 4.93 hours, it suggested.

The report noted: "Very low wind events are not confined to periods of high pressure in winter.

"They can occur at any time of the year."

During each of the four highest peak demands of 2010, wind output reached just 4.72%, 5.51%, 2.59% and 2.51% of capacity, according to the analysis.

It concluded wind behaves in a "quite different manner" from that suggested by average output figures or wind speed records.

The report said: "It is clear from this analysis that wind cannot be relied upon to provide any significant level of generation at any defined time in the future.

"There is an urgent need to re-evaluate the implications of reliance on wind for any significant proportion of our energy requirement."

However, Jenny Hogan, director of policy for Scottish Renewables, said no form of electricity worked at 100% capacity, 100% of the time.

She said: "Yet again the John Muir Trust has commissioned an anti-wind farm campaigner to produce a report about UK onshore wind energy output.

"It could be argued the trust is acting irresponsibly given their expertise lies in protecting our wild lands and yet they seem to be going to great lengths to undermine renewable energy which is widely recognised as one of the biggest solutions to tackling climate change - the single biggest threat to our natural heritage.

"We have yet to hear the trust bring forward a viable alternative to lower emissions and meet our growing demand for safe, secure energy."