EWT
Direct Drive Wind Turbines

Contributing to Wales' low carbon economy from a brownfield, industrial location

Since November 2013, Merthyr Renewable Energy Ltd have been generating renewable electricity at the site of Merthyr Borough's recycling centre. Aside from the significant amount of energy produced by the turbine, its location sends out a strong visual signal of the potential for renewable energy, and improved environmental performance more generally, in Wales.

The turbine model chosen by Merthyr Renewable Energy Ltd was the EWT DW54, 500kW, with a height of 77m to blade tip. Thanks to the good local wind resource and the reliable nature of the turbine, this medium scale turbine is able to generate a significant amount of renewable energy, which is fed directly into the local grid network.

Mr Alan Davies was Merthyr's project manager for the wind turbine. He commented: "EWT were a joy to have as a supplier, they kept us informed throughout the whole project and delivered on time. We have used EWT on more recent projects and will continue to use them on future ones."

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EWT Merthyr Tydfil Case Study

Installed at the Pengarnddu Industrial Estate, the location of Merthyr Renwable Energy Ltd's EWT wind turbine is eminently sensible. As well as there being no residential properties within 540 metres of the turbine, by developing on an industrial, brownfield site, no agricultural land has been taken up. In fact, prior to the turbine's installation the land was being used for the storage of scrap metal and cars. The careful siting of the turbine has meant that the operations of the Merthyr Borough recycling centre have also been able to proceed without interruption.

Both the Welsh Assembly and Merthyr's local policy is supportive of wind energy development, especially in relation to small-medium scale development on brownfield land. The significant amount of electricity produced by EWT's turbine – approximately 2,200MWh per annum – makes a valuable contribution to the Welsh Assembly's praiseworthy goal of transitioning to a low carbon economy, as well as their target of being an entirely energy self-sufficient nation through renewable generation within 20 years. The electricity produced is roughly equivalent to the average annual energy needs of 468 homes.

Benefits to the Company and Local Community

- The EWT DW54 turbine provides on average 2,200 MWh per annum for the local grid network
- By producing electricity from a renewable natural resource, 960 tonnes of CO_2 are saved by the turbine per annum
- The power produced is equivalent to the average annual electricity needs of 468 homes – or approximately 7.2 per cent of the homes in the turbines host ward (Dowlais)
- Local construction company, Raymond Brown Cymru, were contracted to install the turbine.
- All the construction materials were sourced locally.
- Suitable, sustainable location has meant that no public objections were registered with Merthyr Tydfil County Borough Council.

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