



Llanwonno Energy: Drainage and Coal Tips Key Information.

As part of our ongoing assessment of the geotechnical and hydrogeological environment at the Llanwonno scheme, we have developed a summary of our findings:

The Environmental Impact Assessment (EIA) is developed for the 8 wind turbines and solar panels on the southeastern facing high ground below Llanwonno forest. The EIA looks at the potential impacts to geology, hydrology and hydrogeology as a result of the proposals. The EIA concentrates on the impact of turbine foundations, access roads and construction compounds on the geological and hydrogeological regime and the Coal Tips located 715m and 1,165m away.

The area has a history of Coal Mining activity, which has been assessed, with data obtained from the Mining Remediation Authority (formerly the Coal Authority), and geological map data. The shallowest workable coal seam is deemed to be at a considerable depth, with mine entries to the southeast of the site. There were no visual signs of land instability. The EIA finds that ground investigations will be required to check the geological regime before we commence build. This is standard practice for large scale wind turbine developments.

Currently any water landing on the area of the proposed turbine bases infiltrates through the top soil and is carried below ground easterly along the Brithdir Rider coal seam. This dips to the east and the water ends up in the Blaenhenwysg stream.

To build the proposed turbines, foundations would be dug into the shallow sandstone to create a large circular base, the base is then filled with concrete. The footprint of each of the wind turbine bases takes up a very small area of the existing overall plateau, rain which falls at those points, will be collected off the slabs and into drainage channels which will carry the water east down the hillside into existing drainage ditches into the Nant Blaenhenwysg stream. No surface water from these drainage measures would affect the coal tips, the western coal tip is 715m uphill from the wind and solar proposal. The eastern coal tip is located 1,165 meters away, any surface water would flow into the Blaenhenwysg stream before reaching the coal tip.

Therefore, even with the construction of the proposed turbines and solar panels, the surface water will continue to follow its existing route eastward into the Blaenhenwysg stream.