



Cwm Dyli Hydro



Cwm Dyli hydro-electric power station was built in 1906, is Britain's oldest power station and the first instance, in Britain, of the use of Alternating Current.

Water for the site primarily comes from [Llyn Llydaw](#), some 320 metres above the power station, with a 1.2mile pipeline to the powerhouse.

It was upgraded in 1990 and has a single 9.8MW turbine.

A pipeline refurbishment project is underway at Cwm Dyli Hydro Power Station, based in North Wales. The work will involve replacing the pipeline supports and is set to take place in intervals until October 2023.

The integrity of the high energy pipeline is very important in hydro power generation. The momentum of the water in the pipe is broadly equivalent to the momentum of an express train travelling at full speed, so RWE's pipelines and valves are maintained to very high technical standards.

The supports have been assessed during regular routine inspections and, while there are no urgent integrity concerns, some pipeline supports are showing signs of degradation after 30 years of service.



As illustrated above however, the project team will face a unique challenge due to the positioning of the pipeline, which resides on a steep incline on the side of Yr Wyddfa (Mount Snowdon). With parts of the pipe inclined at nearly 45 degrees, the pipeline supports are required to both hold it in place whilst also allowing it to slide as it expands and contracts.

Due to the exposed nature of the landscape, the team are unable to work year round as the weather will be a significant factor. This means that the work will be undertaken in the dryer months of the year, May to October.



Keith Moorcroft, UK Cluster Manager in the Hydro & Storage group, said: "A priority for the project will be the implementation of careful and consistent safety management. This project team will be working about one hour's drive away from our hub at Dolgarrog, so maintaining regular engagement with them will be vital to keep abreast of progress, make sure we achieve zero harm and to give the pipeline the integrity it needs for another 30 years of service."

