

# Burley Hydro scheme

CO2Sense invested £200,000 in a hydro-electricity generation plant on the Burley River



Wharfedale Hydro Power Ltd has completed the installation of a 329KWh Kaplan hydro power turbine on the River Burley.

The hydroelectric plant, located by Greenholme Mills, Burley-In-Wharfedale, will generate 1,400 MWh of electricity each year, which is enough to power 310 homes.

The Kaplan turbine is an inward flow reaction turbine, which means that the working water changes pressure as it moves through the turbine to generate electricity.

The scheme has renovated and utilised a previously derelict overspill channel in the existing Greenholme Mill, constructed in the 19<sup>th</sup> century.

The electricity generated is sold to the National Grid, and is expected to generate around £296,000 in income per year.

## Renewable Energy

- £200,000 investment from CO2Sense
- Project generated £440,000 of private investment
- Will save 7,700 tonnes of CO<sub>2</sub> over the next 10 years
- Created local construction jobs
- Plant will generate 1,400MWh of electricity each year – enough to power approximately 310 homes.

“ The investment and support from CO2Sense has been invaluable – without this support this project would not have come to fruition. ”

Bob Middleton - WHARFEDALE HYDRO LTD

CO2Sense provided an important capital investment of £200,000 to the project. This is recouped from the project's income generated from the sale of the electricity. This allows CO2Sense to re-invest this money to support more renewable energy projects.

Victoria Maynard, CO2Sense Consultant, said, “Hydro electricity is a key way of producing clean electricity using the natural resources the country has. This is a great example of how hydroelectricity can be financially viable and bring in profits”.

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The plant will save around 7,700 tonnes of carbon dioxide over the next ten years. As well as the environmental benefits, the plant has already provided jobs for the local area during the construction, and attracted £440,000 of private sector investment to the area.

Bob Middleton, Wharfedale Hydro Ltd, said, “The investment and support from CO2Sense has been invaluable – without this support this project would not have come to fruition.”



Close ties between the community and Wharfedale Hydro Ltd were developed to ensure people’s concerns could be voiced and answered. The company have also constructed the plant to help protect the natural habitat of the river; the plant will not run in dry weather and a fish ‘bypass’ has been installed to protect the river’s aquatic species.

The scheme is now operational, with the official opening ceremony attended by local MP Phillip Davies.

**CO2Sense is the not-for-profit low-carbon expert company that helps organisations to cut their costs and to improve their environmental performance. We offer no-nonsense, clear help and capital investment to cut the cost of energy, water and waste, and to generate clean energy.**