

Burley Hydroelectric Scheme

- **Local authority area:** Bradford Metropolitan District Council
- **Stakeholders:** Wharfedale Hydro Power Ltd, CO2Sense

Summary

The hydroelectric plant, located by Greenholme Mills, Burley-In-Wharfedale, has a capacity of 392kW and will generate 14,000 MWh of electricity each year, which is enough to power 3,500 homes.

Background

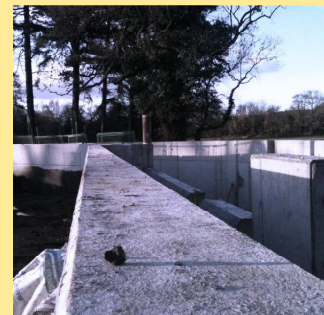
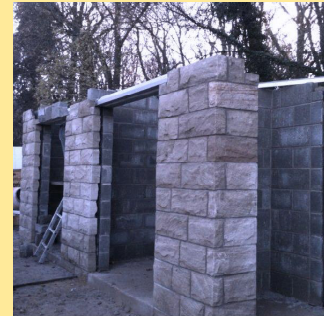
- Wharfedale Hydro Power Ltd, the company set up to run the project, has installed a 329KWh Kaplan hydro power generator in the River Burley.
- This sort of turbine is an inward flow reaction turbine, which means that the working water changes pressure as it moves through the turbine, and eventually generates electricity.

Method

- CO2Sense have provided capital investment of £200,000 to the project. Once the plant is generating electricity and income, CO2Sense will recoup its investment as the project pays back the money it received.
- The plant has been constructed using an old overspill channel in the existing Greenholme Mill, constructed in the 19th century, so is renovating a previously derelict structure.

Result - Key outcomes and impact

- This electricity is sold back to the National Grid, and is expected to generate around £135,000 in income per year.
- The plant will save around 6,450 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.
- 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 wildlife in the river.



Key contact

Name	Victoria Maynard
Post title	Project Manager
Email	info@co2sense.org.uk
Telephone number	0113 237 8400
Address	CO2Sense Ltd Victoria House 2 Victoria Place Leeds LS11 5AE

References / Links

Construction photos -

<http://www.co2sense.org.uk/networks/renewableenergy/b/weblog/archive/2011/03/16/kaplan-hydro-turbine-continues-construction-in-burley-in-wharfedale.aspx>

Local news report -

http://www.wharfedaleobserver.co.uk/news/news_local/9191111.New_lease_of_life_for_Burley_mill_as_river_power_harnessed/