Planning for Climate Change

# Case Study

climatechangeskills for planners

## Bainbridge Hydroelectric Scheme

- **Local authority area:** Richmondshire District Council
- **Stakeholders:** CO2Sense, River Bain Hydro Ltd, the Raydale Project, Water Power Enterprises (H2oPE)


## Summary

The Bainbridge Hydroelectric scheme is a community project that generates clean electricity using the natural fall of the water in the River Bain through a 45kW Archimedes Screw.


## Background

Include the following:

- Expand more on the development and the issues being addressed
- The project aims to preserve the wetland habitat and improve the water quality throughout the entire river catchment and surrounding areas.
- The River Bain is the shortest river in the country, and shows that even on a small scale, renewable electricity generation can produce significant results and benefits for the local community.

## Method

- CO2Sense gave the project a £50,000 grant towards purchasing the Archimedes Screw.
- River Bain Hydro also has been working with Water Power Enterprises (H2oPE) to deliver the scheme. H2oPE specialise in the development of community owned hydro electric schemes.

## Result - Key outcomes and impact

- Profits from the plant will used to help conserve the natural environment of the river.
- The Archimedes Screw will produce 185,000 KWh of electricity per year – enough to power 45 homes per year.
- It will save 95 tonnes of CO2 per year.
- It will produce around £35,000 income per year for the investors and the local community, and profits will be put back into local wildlife conservation project

- The profits will be split between the funders, shareholders and the Raydale Project. This is a community project set up to conserve the natural environment of the River Bain. The project aims to preserve the wetland habitat and improve the water quality throughout the entire river catchment and surrounding areas.
- The Raydale Project also works with landowners to improve knowledge and understanding of how sensitive management of the uplands can help mitigate the effects of climate change on the entire river.
- The hydro electricity generation project fits in well with the Raydale Project as the Archimedes Screw is a fish friendly device, and so has no adverse effects on the biodiversity of the river.

## Key contact

| | |
|---|---|
| Name | Victoria Maynard |
| Post title | Project Manager |
| Email | info@co2sense.org.uk |
| Telephone number | 0113 261 5151 |
| Address | CO2Sense Ltd<br>Victoria House<br>2 Victoria Place<br>Leeds<br>LS11 5AE |

## References / Links

Yorkshire Dales National Park - http://www.yorkshiredales.org.uk/index/lookingafter/climatechange/cc-whatyoucando/cc-renewableenergy/cc-renewableexamples/cc-hydroschemes.htm