



Whitby Esk Energy community hydroelectric project

In 2008, some of the members of Esk Valley Community Energy Group (EVCEG) set up 'Esk Energy (Yorkshire) Limited', an Industrial and Provident Society (for the benefit of the community), to fund the installation of a 50 Kw hydroelectric generator on the south side of the River Esk at Ruswarp, near Whitby.

Esk Valley Community Energy Group is a voluntary group originally set up in the Esk Valley in Danby Parish with the help of the Parish Council and the North York Moors National Park Authority with the mission to reduce carbon emissions and to "Think global and act local". Over the last 5 years they have held a number of well attended public talks about energy reduction and choosing renewable energy equipment. Colin Mather the chair of the group said "Insulating our homes is the first thing to do. If we can reduce the losses from our homes we will not need so much energy. It is also the cheapest and easiest thing and most effective thing that we can all do. Only after doing this should we think about renewable energy installations."

Members of EVCEG inevitably wanted to see if renewable energy could be produced in their locality. Following research into types of renewable energy, a hydro survey of the River Esk catchment was carried out in 2007 and after long discussions working with the Environment Agency, the group chose Ruswarp weir as the preferred option to install a hydro electric turbine. Through Esk Energy (Yorkshire) Limited, they have worked for the last four years with the Environment Agency, North York Moors National Park and the River Esk Action Committee to develop a scheme which will generate green electricity and improve the ability of salmon, sea trout, eels and lamprey to travel up-stream over the weir.

The installation, 'Whitby Esk Energy', is very low key visually and includes a fish friendly Archimedes Screw Turbine. As well as producing 'green' energy, the profits from selling the electricity will be used to help local people to reduce their own impact on the environment. The turbine will produce an average 160,000 kWh of green electricity every year enough for approximately 45 houses and save nearly 70 tonnes of carbon each year for up to 40 years.

Income from selling the electricity will be used to further reduce carbon emissions locally e.g.

- Developing and operating a grant system towards the installation of solar, wind and water energy generating systems in the Esk Valley.
- Promoting green energy educational programmes.
- Pioneering green energy apprenticeships.

The group raised over £150,000 in community shares, and enough loans and grants, including one from Naturesave Trust, for which we are very grateful. Therefore, the Directors were able to approve the construction of a hydroelectric turbine on the River Esk at Ruswarp. Construction started in May 2012, with generation due to start in October 2012.

This project is supported by:- North York Moors National Park Authority Sustainable Development Fund, North Yorkshire County Council Community Fund, Keyfund Yorkshire, European Union, Naturesave Trust, Co-operative Society, Environment Agency