Renewable energy project aims to harness power of River Esk

A PIONEERING project to create renewable energy, cut pollution and give something back to the community has taken a major step forward.

The Esk Valley Community Energy Group, on the North York Moors, is planning a scheme that could provide power for 600 homes and displace 860 tonnes of carbon dioxide emissions.

The group is promoting small-scale hydro power schemes on the River Esk and its tributaries - the first project of its kind to be promoted by a community organisation.

A survey commissioned by the group has identified six sites where commercially viable projects could be placed.

The aim is to meet a significant part of the valley's energy needs with minimal impact on the landscape -a key consideration for a National Park location.

A similar community project looking at small wind turbines is also under way, with wind speeds in the area being monitored.

Archimedean Screw's Fish Friendly Credentials

The Archimedean screw low head hydropower system continues to demonstrate its fish friendly credentials, with two new schemes recently receiving their EA abstraction licences without any requirement for screening. One of these is on a major tributary of the river Wye which is a very important salmon river. Phase 2 of the ongoing fish testing programme at the Archimedean screw in Ashburton, Devon has seen 160 eels of lengths of up to 80cm successfully pass through the screw.

The Archimedean screw system supplied by Mann Power Consulting Ltd. delivers a gross head 'water to wire' efficiency of up to 75% over a very wide flow range, and thus competes directly with conventional turbines, while offering the ability to run the system without the need to exclude fish and floating debris. For further details please look on their web site at www.mannpower-hydro.co.uk

David Mann, Mann Power Consulting Ltd

The chairman of the group, Colin Mather, said yesterday: "We have made significant progress over the past year in assisting local households in reducing their own carbon footprints through energy efficiency and micro- generation.

"This project, to install hydro-electric turbines on the River Esk, provides the opportunity for us to take that work to a new level by developing local renewable power generation on a scale which will make a significant contribution to meeting our own energy needs as a community."

The park's renewable energy officer, Peter Jones, said: "The group is pushing the boundaries of community-owned energy development. Their determination and commitment is driving forward solutions, which will make a significant contribution towards meeting the National Park's commitment to reducing carbon emissions."

Small-scale hydro-power schemes cost £30,000 to £250,000 depending on their size, and would be financed through grants, local landowners and other sources.

Some of the possibilities identified along the Esk could pay for themselves within only a few years. A public meeting will be held at Danby village hall at 7.30pm on Thursday, September 27, when David Mann, of Mann Power, who undertook the survey on behalf of the group, will present the findings.

Source: Northern Echo

David Mann of Mann Power Consulting Ltd added...

"One of the interesting aspects of the Esk Valley study was that it was designed to identify ALL hydropower potential within this river catchment.

Sites were identified by a combination of:-

1. Stakeholder consultation, public meetings etc.
2. National Park input, and local knowledge of existing mill sites, etc.
3. A desktop study looking at both the topography, and the location of old mill sites.

We therefore really think that we have covered everything there, as well as involving the local community as much as possible. This could be an interesting model for other parts of the UK."

...hydropower - the **world's No.1** *renewable energy*