

MICRO HYDROPOWER

Climate change is seen as the major problem of our generation, and confronting it will mean action on how energy is sourced and the levels of demand. In 1990, the United Kingdom signed an agreement for reducing emission levels at least 80% by 2050. The Northern Ireland government has set a bold target in relation to reducing both greenhouse gas and carbon dioxide levels. Through the Strategic Energy framework it was instituted that by 2020 40% of electricity will be sourced from indigenous sources.

Micro hydropower is one of the renewable energy technologies that is potentially available to communities if they are situated relatively close to a water source.

There are no clear estimations on the potential of micro hydropower in the United Kingdom, but some state that there could be around 20,000 derelict weir and watermill sites across the region that could generate between 600MW and 10,000MW of power.



There are numerous benefits that are directly related to the installation of a successful MHP scheme, especially if undertaken by a community. Community led schemes mean generation can provide sustainable revenue locally. Furthermore, there is a general consensus that projects owned by the community will be more locally acceptable and that there will be fewer problems obtaining planning permission. These schemes are popular for communities as they can provide cheap electricity, particularly if grants can be secured.

However there are barriers to the deployment of these technologies that hinder their potential in generating mass amounts of electricity. The procedure of developing a micro hydropower scheme takes up a lot of time, is resource demanding and multifaceted. There are also financial constraints, such as the availability of grants cannot be certain.

Finally there is a general lack of expertise amongst utilities, technology suppliers and a skilled labour force which has greatly limited the potential of micro hydropower.

It is believed at one time there was around 30,000 mills in operation in the UK and it is at these sites where there is the potential for modern hydroelectric installations. Do you believe more should be done to promote the advantages of micro hydropower? Do you believe it is achievable for the ordinary person or community?



An example of a restored mill, which has become more a more attractive proposition to developers in recent years.

Source: <http://www.globalsiteplans.com/environmental-design/engineering-environmental-design/micro-hydropower-an-underused-source-of-renewable-energy/>