

Tourmakeady Sustainable Energy Community, Co Mayo Ireland

This renewable energy feasibility study was undertaken to investigate the potential of micro hydro energy at 4 locations in Mayo, Ireland.

The specific characteristics of the four sites are dealt with in the final report. These include details of catchment, flow, power output and further details relevant to the individual sites. As the four sites are very similar there is much of the information that is common to all.

The four sites range in power output between 35 and 50 kW and can replace some €130,000 worth of bought in electricity per annum. This could make a significant contribution to making the Tourmakeady area self-sufficient in electrical needs using a renewable energy source.

Aims

The goal of this Feasibility Study was to determine which of the 4 sites has the most potential to be feasible from both a technical and an economic perspective.

Results

As a community project these sites have a merit that will only increase

with time. As energy becomes more valuable and as non-renewable resources become scarce, the pressure to develop all renewable opportunities will become urgent.

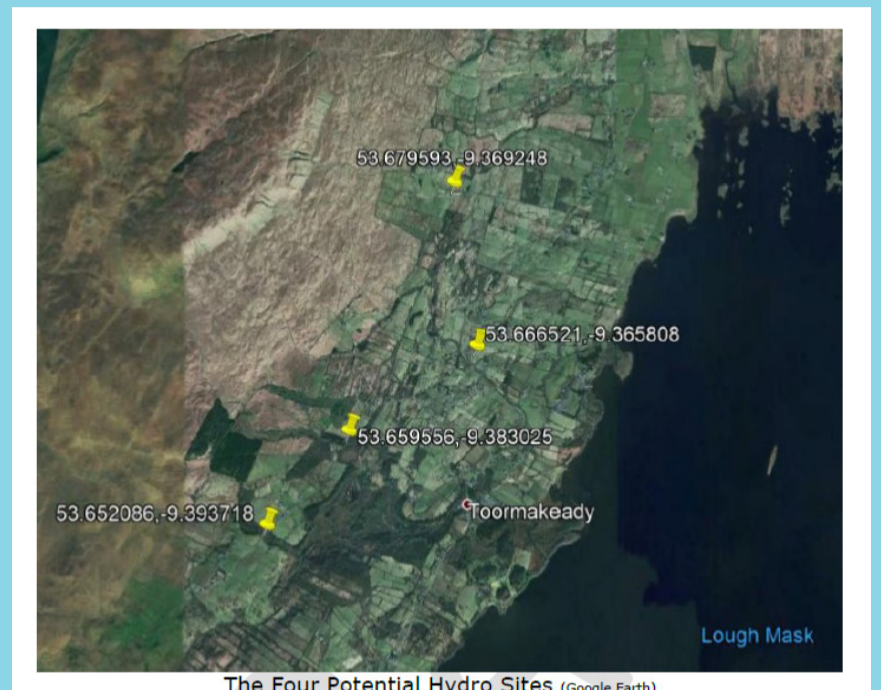
The development of this project so that it will benefit all in the community is complex, but the reward of a secure energy future for an almost infinite time makes the project worth the effort.

There is a requirement for an appropriate assessment of the rivers, there is no requirement for a full EIA. The cost of the assessment would be €6,000 and would be appropriate for all four schemes.

Next Steps

There is currently no feed in tariff for micro hydro. The new Renewable Electricity support Scheme (RESS) only supports projects that are bigger than 500kW. The group are looking at setting up a co-operative to enable energy trading using a smart grid system.

Funding options now need to be assessed at each of the locations. Grants are available in Ireland through the Better Energy Communities programme that is run by the Sustainable Energy Authority of Ireland.



The Four Potential Hydro Sites (Google Earth)

Highlights

- The estimated total cost of the four projects is c €1.2 million for 165 kW or just over €7,000 per kW installed which is average for such schemes.
- On completion of further measurement, it is possible that the output could be increased with a small extra investment cost and this has the potential to reduce this cost to about €5,500 per kW installed.



Community Based Energy Solutions
for Remote Areas



LECo

Local Energy Communities

CONTACT INFORMATION

Dr Orla Nic Suibhne
Western Development Commission
orlanicsuibhne@wdc.ie
localenergycommunities.net