



Community Energy

SP Energy Networks
community support case studies
Congleton Hydro

Representative imagery



Congleton Hydro

Congleton Hydro in Cheshire, is a 65kW community owned and operated micro-hydro scheme producing renewable electricity from the Havannah Weir on the River Dane.

- 65kW micro-hydroelectric scheme
- Raised over £800,000 of development funding from 323 investor members
- Began generating electricity in 2021
- 250,000kWh of electricity generated per annum
- Saves ~44 tonnes of CO₂e emissions per annum¹

The project began when a group of retired engineers met together to discuss the potential for renewable electricity to be generated in Congleton and provide community benefit for local people. Their idea came from a mutual interest in the technology as well as historical mill and weir infrastructure in the region.

Getting the hydro scheme underway came with numerous challenges which included land ownership, planning permission, raising funding and launching their share offers during the first national covid-19 related lockdown.

To overcome challenges related to planning, the group ensured the wider community was supportive through engagement and knowledge sharing. This meant when the decision went to a planning committee hearing, permission was granted.



Congleton Hydro

¹Using 2025 grid electricity emission factors:
www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2025



Congleton Hydro (cont.)

The initial project idea was discussed as far back as 2006, but the vehicle for delivery, Dane Valley Community Energy Limited, a Community Benefit Society was formed in 2015. A long development time then took place, with the first electricity generated in late 2021. An understanding of potential development timelines and ensuring buy-in from the team throughout is important for success.

Finance was raised through community share offerings. An unexpected benefit of national lockdowns was that what was originally planned as a public event, meetings to promote the shares, moved online and through the power and popularity of online meetings at this time, their message and request spread further than what was potentially possible in person.

All electricity generated by Congleton Hydro is sold via private wire to a local factory a kilometre away. Getting an agreement in place and selling electricity to a business customer, at commercial rates strengthened the business case for the scheme.

As a Community Benefit Society, the group donate £5,000 per annum to local community projects such as schools, community groups, businesses and charity organisations. Applications are assessed against predetermined criteria and successful applications are expected to complete monitoring and reporting back to

Congleton Hydro & Solar Community Trust at the end of the project.

The project from its outset has been used as an educational tool for the community, with regular tours of the facility taking place. Interpretation boards are in place on the approach to the building, telling the story of the site, the river and the history of weirs and why they are used. Congleton Hydro continues to be an exemplar community based renewable energy project, with a thriving business and a team of volunteers who regularly “de-trash” the hydro and re-wild the area around the site.

Future challenges which the community group are looking to overcome include developing a Power Purchase Agreements (PPA) agreement and trying to work with the DNO on sleaving arrangements.

For community groups looking to undertake their own hydro scheme, derisking the project as much as possible from the outset is recommended. This includes carrying out the necessary data gathering like hydrological studies, grid connection, site surveys, and engineering assessments. Financial derisking includes a robust financial model, securing grants or development funding, and regulatory derisking could involve planning permissions, licenses or environmental impact assessments (EIA's).



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