



Kevin Smith

Director of Wadebridge Renewable Energy Network (WREN)

Energy Equality, peer to peer community electricity trading

Energy Equality is the latest in a line of innovations in community energy that Wadebridge Renewable Energy Network (WREN) has developed.

In 2019, WREN developed a concept of community led peer-to-peer electricity trading. This would enable residents with solar PV to sell their surplus electricity to their neighbours, at prices advantageous to both. This sharing of the benefits of renewable energy is why we called the project Energy Equality. In addition, the trading platform, if it could provide a better return than from conventional suppliers, might encourage more people to invest in solar PV.

After receiving initial funding from RCEF, the Rural Community Energy Fund, we have assessed the feasibility of developing new community roof-top solar PV sites, formulated an approach to peer-to-peer trading and engaged with the local community (despite Covid-19). The study is still underway and the next stage of our project is to model the electricity flows between residents to understand how much electricity would need to flow through a trading platform to make it an economically viable proposition.

WREN was founded in 2011 to transform energy from an individual cost to a collective asset, by installing local, community-owned renewable electricity generation. In this way, the community company would be paid for its electricity and community investors would also receive a payment, thus keeping more of the value of electricity in the local community, instead of paying international supply companies, with all the money leaving the community.

It was our original target to generate the equivalent of 100% of Wadebridge's energy needs from community owned assets by 2020. Sadly, we were unable to secure a network connection for a planned solar farm, and the reduction and then elimination of feed-in tariffs made the economics unviable.

In the meantime, WREN had installed a 100kW solar farm and had procured or influenced the purchase of 3.5MW of rooftop and ground mounted solar PV, 1.2 MW of renewable heat installations, and insulation of 160 homes for residents of the Wadebridge area.

It also pioneered the use of tariffs to influence time of day domestic usage of electricity in the Sunshine Tariff trial, with partners Western Power Distribution, Tempus Energy and Regen, to establish whether an offset connection to the network for the proposed solar farm could be made to work. The project was successful, but the conclusion was that not enough domestic demand could be shifted to make an offset connection viable.

In an unfavourable climate for community energy, WREN has focused over the last few years on administering £70,000 of community funds from local wind and solar farms. The Energy Equality project now gives us another way to approach our original aims and has spurred on renewed interest from our community in how they buy their electricity and other ways in which they can make positive life choices to protect our environment and create a better future for the next generation.



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Kevin is a director of Wadebridge Renewable Energy Network (WREN) Ltd, a volunteer-led community energy organisation. He writes about WREN's innovative 'Energy Equality' project that could share the benefits of rooftop solar electricity more equally among the local community through a peer-to-peer trading system.