

Energy Local Opportunities

Project Title:	Energy Local Opportunities		
Delivered by	The Green Valleys CIC		
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LEADER Theme:	Theme 4 - Renewable Energy at Community Level		

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Match funding:	£2,591.18

1. Introduction

Energy Local is an energy supply model that enables consumers to purchase the electricity from small renewable energy generators local to them, through an arrangement with their energy supply company. A generator and a group of consumers form a cooperative known as an Energy Local Club. This Club then makes an arrangement with an energy supply company that buys the electricity from the generator and sells it to the Club members. For units of electricity used during the same hour period as they are generated, these can be 'matched' through the use of smart meters. These matched unit are bought by the consumers at an agreed price, which is typically around half the usual cost. The generator also receives a higher price for the matched unit. The Energy Local structure creates a win-win; lower costs for the consumers and increased income for the generator.

2. Challenge

There are a number of technical elements that need to be assessed before a Club can be formed. Firstly, the generator and the consumers must be within the same area supplied by an electricity substation. This defines the area that a Club can operate in.

Secondly, the generator needs to produce enough exported units of electricity to serve a number of consumers. If there is not enough export available, there is very little financial benefit to the generator and only a few consumers can be involved and this is unlikely to make a successful club.

Finally, there is a significant amount of work required to form a Club. It is essential that a generator can be encouraged to come on board and a core of local consumers are needed to create a functioning club, recruit consumer members, deal with queries, assist the generator and register the Club as a cooperative.

3. Solution

Energy Local relies on the three elements above; defining the Club area; finding a generator; and creating a network to develop the Club. Clubs would be formed on a first-come first-served basis and so if we could assess the whole of the county, Powys's communities would be well placed to take advantage of the benefits. Our solution was:

To use our expertise and the available information from the electricity network operator, to map the club boundaries as these are defined by the location of substations.

To search publically available databases for information on installed renewable energy generators and to place these within a club area.

For those areas where there were suitable generators, form a network of generator and local community, that would be able to take the development of an Energy Local Club forward.

4. **Benefit**

The local generators benefit by increasing the income from the electricity they export. They also might enjoy the ability to support local consumers and feel that their generator has wider local benefit.

Local consumers benefit from reduced electricity prices, when they can use matched units. To maximise benefit, many consumers will need to think more carefully about the way they use electricity and modify their behaviour.

5. **Result**

After the successful Energy Local pilot, we had expected there to be an operational Powys Club by early 2019. We would then use this a model to engage generators and form local networks. However, a number of regulatory hurdles needed to be addressed which delayed the formation of the first Clubs. This made it difficult to recruit generators and form networks in the time available.

However, the mapping was completed without problem. Searching for generators produced a lot more data than expected and there are more potential generators in Powys than had been expected. A limitation is that many of the larger solar PV systems are unlikely to be suitable for a Club as they will have very limited export potential during winter – just the time the consumers have a lot of energy demand. Wind and hydro generators are much better as the periods of maximum output match the periods of highest demand.

We have produced a feasibility study that covers the entire county and this will enable future development of Energy Local Clubs as it contains an assessment of each energy zone in terms of the generators available and the likelihood of being able to form an operational, successful club. We know which areas to target for future promotion of Energy Local and potential engagement with generators.

6. **Project Contact Details**

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7. Partners/Match Funders Logos



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