Open Energy

Project Title:	Open Energy	
Delivered by	Open Newtown	
Start date:	October 2019	End Date: November 2021
LEADER Theme:	Theme 4 - Renewable Energy at Community Level	

Total Expenditure:	£76,719.99
RDP Funding:	£60,952.52
Match funding:	£15,767.46

1. Introduction

The aim of this project was to address carbon emissions in Newtown, with particular focus on whether the community asset transfer of 130 acres of green spaces to the town would create any potential for generating renewable energy.

2. Challenge

130 acres of green spaces has recently been transferred from the local authority to the town, and part of this project was to investigate if this could create opportunity for producing renewable energy, either from solar PV or from biomass waste. There were 3 specific objectives of the project.

1. To look for opportunities for a community solar PV project in the town,
2. To investigate the opportunity for using green waste from the green spaces for energy generation, and
3. To look for other innovative ways to reduce carbon emissions.

3. Solution

It was quickly established that putting significant area of solar PV on the green spaces themselves was not an option, this land has high recreation value, and it is clear that PV is more suited to low value land. Other options for PV were explored, either on large roofs in town, or on other structures (e.g. a purpose built canopy over bike paths or recreation areas).

The purpose built canopies would be far too expensive to justify on the basis of the value for generating electricity, and no suitable roofs could be found in the town with owners that were willing to host a community energy scheme. The removal of the Feed in Tariff in 2019 has made the choice of roof far more critical, such that it is only financially viable if most of the electricity generated is actually used on-site, making this search for a roof harder.

The use of biomass from the green spaces proved to be challenging. The amount of waste created on the 130 acres is not sufficient to justify any significant capital investment on its own, so it would have to be combined with other sources of green waste. A scheme was devised for a hub which would process green waste from a variety of sources; This concept has a great deal of potential and this project funding was able to progress this scheme a certain distance, but there is considerably more work required that we had resources for, so only some initial stages could be completed. Follow on funding has been obtained and this project is now being progressed further under this alternative funding.

Finally there was the third strand which was to look at other innovative ways of carbon reduction. The original idea was to see if the EnergyLocal model could be applied in Newtown. This is a way of linking up local renewable generation with local customers. Given that we were unable to establish a local renewable generator this could not be progressed, but instead the issue of domestic energy use was tackled. This proved to be a far more promising strand of work and it became clear that in the search for ways of addressing carbon emissions in Newtown, tackling the inefficient use of energy in homes in the town is the highest priority if we are to significantly reduce the towns carbon emissions.

Various options to progress this were explored. Two significant strands that have emerged are the local involvement in an EST funded domestic energy efficiency project, that spans Shropshire, Herefordshire and Powys looking at piloting and exploring various different ways of delivering home energy advise to householders with the aim of rapidly scaling up retrofit. The second is an exploration still being pursued into the concept of a retrofit co-operative, a social enterprise that buys, retrofits and lets houses, with the aim of promoting the concept of retrofit, and encouraging new suppliers and installers to enter this market. This concept continues to be explored outside the Open Energy project.

4. Benefit

The project did result in two pilot installations being created that demonstrate renewable technologies.

The first is the installation of two solar PV powered flood lights, lighting the skate park and pump track in town. These show how street lighting can be installed which have zero carbon footprint once installed. This could have significant further application in Newtown for instance illumination footpaths and cycle paths in town.

Solar PV flood light at the Pump Track

The second is the installation of a stand-alone PV/battery system on a building in the park in Newtown where the connection cost to the mains would have been very expensive. This has illustrated the potential for creating an electricity supply for remote building that do not have a grid connection.

PV panels mounted flat on the roof of the bike hub, providing light and charging for electric bikes.

The project has stimulated interest in domestic energy use and has resulted in involvement is a much larger pilot of delivery of home energy advice.

The project has also resulted in the formation of 3 networks, Climate Action Newtown, Powys Action on the Climate Emergency, and a Community Energy Wales working group focusing on domestic energy efficiency. These networks are all continuing beyond the project.

5. Result

The project has stimulated further activity and funding which is now making further progress in the areas of green waste and biomass processing and in the acceleration of retrofit and improvement of energy efficiency in housing.

6. Project Outputs/Outcomes

Output (Case Level Indicator)	Achieved
No. of feasibility studies	4
No. of networks established	3
No. of jobs safeguarded	0
No. Of pilot activities undertaken / supported	2
No. of community hubs created	0
No. of stakeholders engaged	50
No. of participants supported (awareness raising events only)	
No. of communities benefitting	1
No. of businesses benefitting	

7. Project Contact Details

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8. Partners/Match Funders Logos

Date Case Study Completed:	18/06/22