Black Mountains College Case Study RDP066 - 2

Introduction

Black Mountains College sought support in 2019 to develop an options appraisal on potential sites for the college to facilitate pre-commercial development of the business case to investors and donors. During that process, the potential for green energy generation and distribution within Talgarth and the role that the sustainable development of sites linked to the college could play in triggering an upgrade to the Mid Wales portion of the National Grid was discovered. A follow-on grant was therefore sought to enable to feasibility of that to be expore.

Challenge

The challenge was to explore how the two shortlisted sites in the Options Appraisal could be developed in such a way as to facilitate the generation of green energy with multiple potential benefits:

- Feeding green energy into the grid and the local network
- Triggering an upgrade to the national grid through the need for infrastructure to carry newly generated renewable energy, a significant public good for the region

Solution

A collaborative research agenda was established with Green Valleys CIC together with Black Mountains College to examine the feasibility of differing renewable technologies on the various sites. In particular:

- conducting all the pre-planning requirements for solar arrays on fields and roofs at the Mid Wales Hospital Site and the Troed yr Harn site
- modelling the business and commercial potential of the various sites and the thresholds for triggering upgrades to the grid
- examining the wider potential for partnerships and collective solutions to local renewable energy generation, consumption and transmission.

Benefit

The benefit of the project was to establish the barriers and opportunities for renewable energy generation and transmission locally. It was a badly needed ‘map of the territory’ to guid local community efforts at increasing the amount of renewable energy generated locally of which BMC seeks to play a part.

Result

The study provided a series of reports:

- Zone of Theoretical Visibility study for both sites
- Field surveys
- Ecological walk over surveys
- Field level design of solar
- M and E modelling of the campus and the various solar arrays
- Planning advice and design
- An energy report with clear ways in which the development of renewable energy at BMC can dovetail with community generation and 'energy local islands'

Together this represents valuable pre-commercial information to any developer seeking to do work on the MWH site, the unlocking of which is a key public goal for the community and the National Park and Powys CC. It provides the same information for BMC which has incorporated the information gathered in its planning application and energy plans for the campus now under development.

Although the upgrade to the grid was not triggered, the barriers to doing so are well understood and the constraints within which community energy efforts must now proceed are better understood.

Project Outputs/Outcomes

Output (Case Level Indicator)	Achieved
No. of feasibility studies	1
No. of networks established	0
No. of jobs safeguarded	1.24
No. of pilot activities undertaken / supported	0
No. of community hubs created	0
No. of stakeholders engaged	24
No. of participants supported (awareness raising events only)	106

Outcomes	Achieved
No. of jobs created	0.53
No. of communities benefitting	0
No. of businesses benefitting	4

Project Contact Details

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Partners/Match Funders Logos

Project Details

Key Data	Project Specifics
Delivered by:	Black Mountains College
Start Date:	1 July 2020
End Date:	31 August 2021
LEADER Theme:	Energy

Financial Details

Description	Amount
Total Expenditure:	92,198.39
RDP Funding:	63,150.00
Match funding:	29,048.39

Case study completed on: May 9 2022