

Marches Solar Power Roof Competition

Introduction

We've had a lot of interest from community groups who are enthusiastic about the idea of a community-owned solar project, using solar electric (photovoltaic) panels like these:



20 kW Solar Roof at the Centre for Alternative Technology, Machynlleth, Wales

Here at Sharenergy we have been doing a lot of work on this, and we believe that with the new Feed-in Tariffs this will be possible, as long as we can find the right place to put it and the right group to work with. For this reason we've joined forces with other local experts to launch the Marches Solar Power Roof Competition.

We want to start with a pilot project and we want to give that project the best chance of working so that others can follow in its footsteps. So we're running a competition for community groups to find the best roof in the Marches. We will work with this group through the feasibility phase, underwriting the costs of this and of seeking planning permission and other necessary consents. We will then support the group to raise the finance locally, so that the solar array can be owned locally bringing carbon and financial benefits to the local community.

We've therefore come up with a list of criteria which we think that the winning roof will have. Some of them are obvious: it's got to face South or close to South. Some are less obvious: it's got to be on or near a user who needs most of the electricity at the time it's being created. And it's got to be big enough. This means it may well not be your local village hall but it could be your local swimming pool. It could even be a factory or other commercial building in private ownership. The aim of the competition is to install around 100kW of solar panels, which will generate the same amount of electricity in a year as around 20 average UK houses consume. This means savings of around 48 tonnes of CO₂ equivalent each year.

Co-operatives

We want to establish a community-owned solar photovoltaic co-operative along the same lines as our wind power co-operatives. For all the details on how these work please see our website <http://www.energy4all.co.uk>. We are working on similar projects with wind, hydro, biomass and biogas in this area, and for more on these see <http://www.sharenergy.coop>. As a very quick summary, this is how our co-operatives work:

1. We work with community groups to find and develop projects in their area.
2. We provide expertise, support and funding to develop the projects to the point where they are ready to be built.
3. We help the community to set up a co-operative, which then raises shares from local people to finance the build.
4. The ownership of the project transfers to the co-operative which is completely independent.
5. The share offer also raises the money we spent on stages 2 and 3. This is returned to a Revolving Investment Fund so the next community group can use it.

The last point means we are not a grant scheme. However, if for some reason a project does not prove viable, the money spent is not repayable by the community, so there's no risk to the community group.

To give some idea, we expect the 100kW solar project to cost around £350,000. Some of that could be met by a loan, meaning that we might raise £150,000 in shares. That could mean 60 co-operative members investing an average of £2500 (you can invest between £250 and £20,000) and getting interest of around 5-8% (averaged over 25 yrs). If the numbers sound daunting, check out Westmill Wind co-operative: £4.8 million raised, over 2000 members!

It's worth noting that our co-ops do three main things:

- Build renewable energy installations which generate meaningful amounts of power
- Provide a local, ethical, financially sound investment opportunity
- Give people the power to own and operate their own mini green power stations

In addition, the larger projects may well have some surplus which they can use to support local good causes. In the case of this solar project, we don't think there will be very much surplus. Of course, it will be in your hands: you can choose to take less interest and use the money for something local, but you'll have to persuade all the other investors that this is a good idea!

What you get if you win

- Expert support to carry out feasibility work for a 100kW solar photovoltaic roof
- Costs of planning applications and legal agreements covered
- Support for forming a co-operative and raising the finance needed to buy, install and maintain the panels

Who we are

Marches Community Solar is the group behind the Marches Solar Powered Roof Competition. This group consists of a number of organisations working in solar energy in the Marches, who also have a shared interest in community ownership of renewable energy. These are:

- Sharenergy (run by Energy4All)
- Marches Energy Agency
- Wind & Sun Ltd
- Household Energy Service
- Dave Green Energy Services

What the building owner gets

The building owner can either receive rent for the use of their roof or, if they are also the building occupier, potentially receive electricity at a discounted price. The details of this agreement can be established with them after the pilot project is chosen.

How to apply

In order to apply groups need to complete the online questionnaire by midnight on Tuesday 26th October 2010. Further guidance is provided on the questionnaire. Groups can submit more than one roof in this competition. For help with filling out the form or to discuss any aspect of your submission, please do not hesitate to contact Sharenergy.

Eligibility

You need to be:

- A local, not-for-profit community group, though you don't need to be formally constituted (e.g. as a charity or a Community Interest Company)
- Within the Rural Regeneration Zone (see map below)
- Willing to establish a co-operative to own the panels, if the feasibility work is successful
- Able to mobilise support from a number of volunteers willing and able to devote time to developing the project

Criteria for your Roof

Below is a quick checklist of the key features that your roof will need to have and the types of questions you will need to answer in order to submit your roof.

Criteria	Details
Construction type	Sloping preferred but flat roof also considered
Angle	Optimum pitch or angle is 30-40 degrees, but for large roofs this is likely to be less
Orientation	Optimal is South although any angle within 45° of this may be suitable
Area	Around 800m ² or larger (usable, unshaded area, facing the right way)
Strength	Structurally sound, capable of bearing the weight of the panels and fixings or mountings
Life expectancy	At least a 25 year life expectancy with minimal need for maintenance
Overshadowing	Minimal from surrounding buildings or trees
Materials	Most considered apart from asbestos
Accessibility	Number of stories or height of building, access for erection of the panels, which may involve scaffolding to part or all of the building
Building owner	Ideally known and a potentially willing party
Building occupant	Ideally known and a potentially willing party who has a good chance of remaining for the 25 year life of the project
Building energy use	High on site electricity consumption – particularly in summer
Planning constraints	Not a listed building or within a Conservation Area
Grid connection	Provide mpan number where possible (meter number found on the building's electricity bill)

Please see the online form for more details on what information you will need to provide, why and how to go about this.

How it will work

The table below gives an indication of how the winning project will be taken forward and in what timescales. The aim is to be producing solar energy by next summer – which will be a challenge!

	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11
Competition												
Competition launch	█											
Support available for groups	█	█										
Shortlisted groups announced	█	█										
Shortlisted groups potentially receive a site visit		█										
Winner announced			█									
Inception meeting			█									
Feasibility												
Building owner agreement signed			█	█								
Building occupant power purchase agreement signed			█	█								
Feasibility work undertaken by MCS			█	█								
Planning application			█	█								
Building control documentation			█	█								
Business plan adapted to winning site			█	█	█							
Share Issue												
Preparation of prospectus				█	█							
Develop marketing strategy				█	█							
Launch & share issue					█	█						
Installation												
Ordering & lead time								█	█	█		
Installation											█	
Commissioning											█	
Publicity											█	█

What if there's a hitch?

We will work with you during the submission phase (if you need advice) and in the shortlisting process to make sure we have as promising a scheme as possible. MCS is made up of a number of professionals with experience of solar installations and community ownership projects and with this input problems should be spotted early on. However, there are no guarantees about issues like planning permission, so the group will need to be prepared to put in time and effort to maximise the project's chances of success. Other issues like building owners or occupiers changing their minds can only be mitigated to some extent by having legal agreements in place, but we will work with you to help to minimise these risks as much as possible.

Clearly we cannot guarantee that the winning project will proceed to installation but we will do everything we can to make sure that it does.

What if you don't win?

If you don't win but you have a promising roof, we will talk to you about what you can do next, to gather information yourself and to raise money for anything you will need help with. We expect this will be the first of many community owned solar roofs that we help to install, so we welcome as many applications as possible and will do everything we can to make sure they all have a good chance of success.

Rural Regeneration Zone Map

