

# Information Pack on Bath & North East Somerset Council and Bath & West Community Energy: 10/10/11

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### See Also:

- BWCE Business plan
- BWCE Rules – as registered with the FSA

## **Part 1: Why and how is the Council working with BWCE?**

### **1. Why is the Council working with BWCE?**

As a local authority, the Council exists for the wellbeing of our residents and has broad powers to pursue this aim. Since wellbeing is threatened by climate change and rising energy prices, we have made de-carbonising our district a priority. Our Sustainable Community Strategy aims to help cut the district's carbon emissions by 45% by 2026. As part of this, our Draft Core Strategy contains the aim of installing 110 megawatts of renewable electricity in our district by 2026.

To take full advantage of the economic opportunity, revenues from renewable energy must stay in the district. BWCE offers us an opportunity to start to make this happen, by aiming to generate at least 25% of the draft Core Strategy target by 2026, amounting to over 25MWe, through community-based, local projects. Further information on how they will do this in Part 2.

### **2. How is the Council cooperating with BWCE?**

The Cabinet will shortly consider approval of a formal Cooperation Agreement. Whilst not a legally binding document, this Agreement sets out the intention to work cooperatively with BWCE under the Council's Wellbeing Powers -- Section 2 of the Local Government Act 2000 states that a Council has the power to do anything which it considers is likely to achieve the promotion or improvement of the economic, social or environmental well-being of its area.

## **Part 2: BWCE projects**

### **3. Solar schools project**

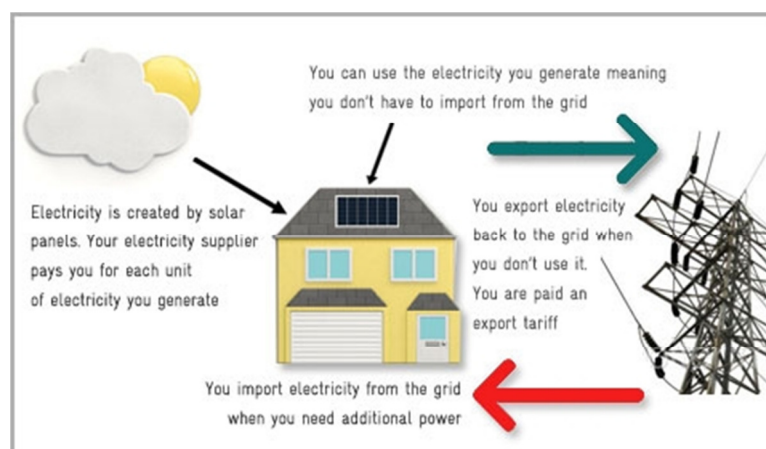
4. What has the Council done? Following agreement with Property Services and Children's Services, we have promoted to our schools the opportunity to work with BWCE on a "solar for free" scheme. In this scheme BWCE buys panels to put on a school roof, the school gets the free electricity and BWCE collects the Feed In Tariff to pay back their investment, with the surplus going into a Community Fund. Schools could then choose whether they wish to take this opportunity.

What stage are the projects at? Below is the current status of solar school projects in the District as of 10.10.11; it should also be noted that BWCE will install panels on the Walcot Rugby Club:

School	Planning Status	Target installation
St Martins Gardens Primary school	Permission granted	October
Newbridge School	Permission granted	November
Oldfield	Permission granted	November
St Michaels Junior	Planning submitted	November
Oldfield Park Infants	Planning submitted	November
Peasedown School	Planning submitted	December
Ralph Allen School	Planning submitted	December

The panels will typically produce between 10% and 25% of a schools energy need. Each kW of installed capacity uses about 8m<sup>2</sup> of roof space.

### How does the Feed In Tariff work?



As the diagram above from the Energy Saving Trust shows, there are three revenues available from solar panels:

1. Feed In Tariff (FIT) – around 33p/kWh<sup>1</sup>, paid for every kWh generated, whether or not you use it.
2. Export Tariff – around 3p/kwh, paid for electricity you do not use
3. Using solar instead of grid electricity – around 12p/kwh, saved by the consumer

The FIT is by far the most lucrative revenue stream, however the avoided cost of buying electricity will continue to rise. It is better to use the electricity, saving 12p/kw, than not use it and sell it back to the grid at 5p. Because of this, buildings that use energy when the sun is out get the maximum benefit. Schools will generally use all the electricity that the panels produce.

It should be noted that the FIT levels will decline in April 2012. It is quite possible that this will significantly change the economics of solar PV, for example, meaning that “solar for free” schemes such as those offered by BWCE will become “low cost solar” schemes.

In order to obtain the FIT, the solar panels must be installed. There may also be a “solar rush” close to the FIT deadline in April. This means that we have under 6 months to get panels installed to obtain the highest level of FITs.

What are typical costs and revenues? The table below shows approximate figures:

			Who gets the cost or benefit?	
Size kW	10	50	BWCE owns panels	Schools owns panels
<b>Upfront Costs</b>				
Capital cost	28000	125000	BWCE	School
Development Cost	2000	10000	BWCE	School
<b>Total Cost</b>	<b>30000</b>	<b>135000</b>	-	-
<b>On-going costs</b>				
O&M Year 1 £	500	2350	BWCE	School
Insurance Year 1 £	112	500	BWCE	School
<b>Revenues</b>				
Energy generated kWh/yr	8500	42500	-	-
Value of electricity generated for site owner £ (at current grid electricity prices- prices will rise significantly)	1105	5525	School	School
FIT Income Year 1 £	3213	13983	BWCE	School

How does BWCE's offer compare to other offers? All commercial roof rental offers that we have seen offer the same deal; free electricity in return for hosting the solar panels. There is some variation in how risks are handled, e.g. the demolition of schools or

<sup>1</sup> The FIT tariff depends on the size of the system. 33p/kWh is for systems in the range 10 to 50 kW. Smaller systems have a higher tariff.

temporary panel removal, and our agreement with BWCE obtains the same value for money as other offers available on the market.

The unique value of BWCE over and above that offered elsewhere in the market are their community benefits, e.g. their community fund (see below), the fact that they are locally owned by community shareholders so keep revenue in the area, and that they aim to stimulate the local low carbon economy. This reinvestment opportunity is not offered by other companies, and will become increasingly important as energy prices rise and we need to insulate our district against these price rises.

## **5. Possible projects on Council Operational Estate**

From an initial survey, Lewis House, Dartmouth Ave and The Hollies are the roofs on the B&NES operational estate that may be suitable for solar panels and of these, Lewis House is the by far the best.

At the Informal Cabinet meeting on the 28<sup>th</sup> October the Council will consider and decide whether to buy panels itself with a view to BWCE managing the installation, or to enter a “solar for free” arrangement with BWCE as the schools are doing. Following this, the Council would need to enter into a Heads of Agreement with BWCE at which point BWCE could do a more detailed survey of each roof to further check its suitability.

## **6. Wind turbines**

BWCE is currently investigating sites for wind turbines, since wind is the most efficient renewable energy technology and can generate by far the most revenue for the community.

## **7. Hydro schemes**

BWCE is currently negotiating with hydro sites.

## **Part 3: Further information on BWCE**

## **8. What type of organisation is BWCE?**

BWCE is social enterprise, registered with the FSA as an “Industrial and Provident Society for the Benefit of the Community” (IPS Bencom). IPS Bencoms are industrial and provident societies, like co-ops, which are owned by their members. However, their profit is not distributed among members or external shareholders but is returned to the community.

Anyone can become a member of BWCE by buying a minimum of 500 shares at £1 and a maximum of £20,000. Regardless of the number of shares held, each member has one vote in governance decisions.

BWCE has included in their rules of incorporation an “asset lock” which prevents the organisation being sold and the assets being distributed amongst its members. Instead, assets must be given to a not for profit organisation with subject to at least the same degree of restriction on the distribution of surpluses and assets as BWCE.

In order to manage its finances and protect loan repayments, BWCE has set up separate, wholly owned “Special Purpose Vehicles” (SPVs) to handle different parts of their business. For example, the first tranche of Solar Schools projects above are all funded by the SSE

loan, so are held in an SPV called “Bath & West Community Solar” (BWCS). BWCE is considering setting up geographically-based SPVs also, where local people can raise share capital, have technologies installed and then keep the revenues from the project in their own local community fund (see diagram on p18 of BWCE’s business plan).

## **9. How BWCE will allocate their income**

BWCE will distribute its revenues using the following hierarchy:

a. Loan repayment: BWCE’s first obligation is to repay its loans. BWCE has gotten an initial £1m loan from SSE at a favourable rate, and will look to attract further low cost loans.

b. Payment of interest to BCE members: BWCE aim to provide members with about 7% interest rate on their share investment, subject to information outlined in share offer document

c. Funding of continuation and development of BCE: Currently, BWCE directors and project managers have been working either voluntarily, or on a “success fee” basis at a rate that is significantly lower than market rates, to be paid once their project succeeds. However, they intend to pay their staff in order to be sustainable. BWCE intends to remunerate staff at no more than the market rate for their expertise. See the pages from the BWCE business plan, included below, for projected figures for staff remuneration.

d. Payment into Community Fund: The remaining revenue will go into a community fund, for further low-carbon projects, which could include further renewable energy projects that would “recycle” the funds further, or energy efficiency projects and so on. Wind turbines will generate greater income into the fund than solar PV projects and the income will increase over time as the loans are repaid. If BWCE’s aims are met, they intend to reinvest at least £200,000 per year into the Community Fund.

## **10. BWCE and the local low carbon economy**

For BWCE’s initial solar projects, the time pressure requires a large partner to deliver to the necessary timeframe and quality standards. However, if we are to grow our local low carbon economy, there must be local demand for low carbon products and services. BWCE aims to provide this by moving to using local suppliers as soon as possible to stimulate the local low carbon economy, the development of which is an aim of the Sustainable Community Strategy. BWCE plans to coordinate with the Low Carbon Skills Academy project to provide demand for skills and expertise that can then be met by people in the area.

## **11. BWCE Goals**

Please find below BWCE’s medium term goals. BWCE has done extensive modelling work to set these goals, for more details about the BWCE targets and budgets, please contact BWCE Chair Pete Capener at [pete.capener@bwce.coop](mailto:pete.capener@bwce.coop).

# BWCE Goals 2011 - 2014



Bath & West Community Energy  
Generating Local Energy

## Short term goals: 2011 to 2012

**Initial focus 2011:** maximise installation of solar PV on schools and community buildings before the solar PV Feed in Tariff starts to reduce. An early focus on solar PV offers the quickest approach to demonstrating tangible progress and an ability to deliver, whilst also enabling widespread communication with communities on the back of practical action.

### First year fundraising targets

Target	Current status
£1 million asset finance from corporate investor	Agreed terms with corporate investor
£400k via local share offer	Preparations underway for Autumn launch
£1.5m from bank asset finance and/or social investors	Negotiations underway with range of banks and social investors
£400k development finance (grants and loan stock)	In advanced discussions with funders for development finance

### Short term goals to be delivered by March 2012

- First tranche of approximately 400kW of solar PV to be installed during quarter 4 of 2011 with loan from a corporate partner.
- Share offer: launch of first local BWCE share offer with a target of £500k scheduled for autumn 2011, on the back of the summer installations and a pipeline of future projects.
- Second tranche of 600kW of solar PV to be installed before March 2012 with financing from the first share offer alongside bank loans.
- Development finance - In parallel BWCE will build its organisational capacity and invest in project development financed via grants and development loan. BWCE will identify and secure options on wind and hydro sites and do the survey work and community consultation necessary to get projects ready for planning.

## Medium term goals: 2012 to 2014

### Focus on next phase of development

Building upon the foundation laid during 2011/2012, BWCE will be able to move into a further phase of development characterised by:

- Expansion into renewable heat projects, utilising the Renewable Heat Incentive
- Development of wind turbine and hydro projects
- Continuing development of solar PV, dependent on government changes to Feed in Tariff levels
- Further development of BWCE's business model to integrate energy efficiency including the Green Deal, and the supply of electricity and heat
- Organisational development and capacity building.

### Medium term business goals to be delivered by July 2014

- 4.5 MW of renewable energy capacity installed, approximately 2500kW wind, 2000kW solar PV and some small hydro
- £11m capital raised for asset investment, £4m equity and £7m debt and/or co-investment
- Interest paid to members of 3-4% over 10 year average RPI (initially equivalent to a target return of around 7%, though this figure will change over time in the light of changes to RPI and will be subject to the performance of our projects)
- Forecasted income over project life enabling nearly £7m to be invested in a community fund, an average of £275,000 per year
- Building a financially sustainable community enterprise supporting a permanent staff team and appropriate organisational overheads
- By July 2014, BWCE will be generating an annual turnover of between £1.5m and £2m, not including capital investment