Business Plan 2012

The Challenge

The twin challenges of Climate Change and Peak Oil pose the most fundamental of threats to the sustainability of Bristol. The task of reducing emissions from the UK's public and private buildings has never been so important, or so challenging.

Our task is to put the power back in the hands of the people of Bristol to choose its future for itself, by putting energy technology into democratic, community ownership.

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1. Executive summary

Bristol Energy Cooperative is a community-owned social enterprise which aims to support the creation of a resilient, robust and organised community, and respond equitably to current and future energy challenges, though profitable investment in Bristol's energy infrastructure.

In the initial phase of the business we will install/purchase up to 39kW of solar PV in partnership with community buildings in Bristol, creating a community owned power station on Bristol's roofs. The government-secured Feed in Tariff scheme will provide an on-going and low-risk revenue stream from the installations provided to our partners through 25-year roof lease agreements. The buildings have been selected to ensure successful project delivery, minimising risk and maximising value for money.

Bristol Energy Cooperative will raise the required capital investment through a community share offer marketed in and around Bristol. Targeting both individuals who would be able to afford significant investments and those less wealthy sectors of society, we will create a democratic and accountable local organisation with a strong membership from all sections of Bristol's communities. Bristol Energy Cooperative is projecting a 4% annual interest on shares from the year after the installations are complete.

Bristol Energy Cooperative forecasts gross returns of 4%, generating £125,000 in net profits over 25 years, and offsetting over 400 tonnes of CO_2 emissions in that time. The scheme lays the ground work for significant future investment opportunities in Bristol's renewable energy sector.

2. Introduction

Background

The Feed in Tariffs scheme is a government programme intended to incentivise the generation of renewable energy technologies. Whilst the Feed in Tariffs can be seen as regressively redistributive - passing financial resources from the poorest to the richest – there are a number of opportunities, which at least in part mitigate this:

- The Feed in Tariffs provide opportunities for community-scale action to enable more people to benefit from the incentive. With the installation of solar PV panels for example, both those with a suitable roof but without the necessary capital, and those with some capital but without a suitable roof, could benefit from community solar projects with social objects and a degree of shared ownership. Community buildings, domestic housing, and Registered Social Landlord housing could all benefit.

- The income from the Feed in Tariffs could provide opportunities for a programme of reinvestment & expansion of renewable energy production and for in other socially useful outcomes, for example: energy efficiency and insulation measures; increased savings and investments in communities with traditionally poor levels of savings; or shielding the poorest from energy price fluctuation.

Bristol Energy Cooperative was established by members of the Transition community in Bristol, and is a project supported by the Bristol Energy Network. It was felt that an organisation building a community-owned energy infrastructure could achieve a number of desirable environmental and social outcomes whilst itself being sustainable and successful. An informal working group was therefore established to investigate the potential for a Cooperative community-based project to utilise the Feed in Tariffs. Over the following months others joined the working group, and the last year has seen concentrated activity to bring the project to launch. The Cooperative received start-up funding of £15,000 from Bristol City Council's Community Energy Catalyst Fund. This has been extremely useful, and has covered preparatory work including legal incorporation, planning application fees, preparation of roof leases, marketing materials, publicity, and other administrative costs.

We are grateful for advice, time and support from a variety of organisations and individuals across Bristol. In particular we would like to thank Hilary Sudbury (Cooperative Development Agency), Lachlan Atcliffe, Bristol Energy Network, Jim Brown (Baker Brown Associates), Connolly and Callaghan, Coexist, Knowle West Media Centre, David Hunter (Bates Wells & Braithwaite), Philip Basin (Grant Thornton), Mark Leach and Graham Starmer (Bristol City Council), Bridget Newberry and Simon Roberts (Centre for Sustainable Energy), Bedminster and Easton Energy Groups, Tim Barker and Wendy Stephenson (The Converging World), Buro Happold, Pete Capener (Bath and West Community Energy Ltd), Paul Hardman (Gregg Latchams LLP), Helen Burley, David Tudgey, Matt Wood, Daniel Narayanan, Inigo Uribeechevarria, solar installers Ethical Solar, Ecocetera, AlterEco and SolarSense, and others who have helped us along the way.

The vision

Bristol Energy Cooperative exists to make a practical contribution to a sustainable energy future for Bristol. We will:

- Act as a 'people's power station', producing a surplus to re-invest in Bristol's future.
- Provide a mechanism to attract investment from community, private and public partners to increase locally-owned production of renewable energy.
- Invest in energy- saving and efficiency measures across the city.

Through investing in the community buildings that act as key 'hubs' in our local neighbourhoods, the Cooperative will mobilise community networks, raising community capital, but more importantly giving communities a say in what a sustainable Bristol looks like.

Our plan is to offer community shares via a share offer through which Bristol residents and others supportive of our aims can become members and shareholders. The shareholdings will fund the first phase of development, which will be based on Solar PV installations on community buildings, taking advantage of the Feed in Tariffs as income. After that, the Cooperative will have the potential to expand into areas such as domestic PV, energy efficiency measures and renewable heat projects.

The Cooperative will build on this strong beginning to create a truly community-based organisation which:

- Is owned, funded and controlled by community members through a community share issue.
- Is marketed and supported through its community partners in different parts of the city and the surrounding area.
- Supports the environmental sustainability of community assets through the installation of solar PV.
- Develops long-term, sustainable revenues for investment into Bristol.
- Creates economic growth and energy security by reducing Bristol's reliance on external power supplies.
- Contributes to reducing carbon emissions in Bristol, and increases energy security through reducing dependence on fossil energy sources.

The project will prioritise financial viability, in order to be able to grow into a significant force for the development of sustainable energy, and will work towards reducing inequality as a core part of its business.

We invite you to be part of the solution!

3. Governance and legal structure

Aims and Objectives

"Action is necessary now, before climate change moves beyond man's control."

Our aims are:

- To enable meaningful cuts in carbon emissions, and reduce dependence on unsustainable sources of energy.
- To fund and implement renewable energy and energy efficiency measures, in collaboration with people, communities and businesses.
- To work cooperatively with people and communities to make carbon reduction technologies available to all regardless of financial resources, and support mutual action to respond to the challenges of climate change.
- To provide a healthy financial return on investment, demonstrating long-term financial sustainability.

We plan to support faster conversion to low-carbon living by:

- Securing investment from investors looking for strong social outcomes alongside financial return.
- Investing in renewable energy and energy efficiency infrastructure, either as a wholly owned, or on a pay-as-you-save basis.
- Reinvesting profits into further infrastructure.

Legal status

Bristol Energy Cooperative is the trading name of Bristol Community Energy Limited which is registered as a Community Benefit Society under the Industrial and Provident Societies Act 1965 (I&P Act 1965), Society number 31313R.

The terms "the Cooperative" and "the Society" are used interchangeably in this document, to mean the Community Benefit Society trading as the Bristol Energy Cooperative.

For the rules of the Society see appendix A.

Why this structure?

Cooperative business solutions are both a way of doing business and a set of social values. As a community benefit society, Bristol Energy Cooperative will operate in accordance with the seven Cooperative Principles as agreed by the International Cooperative Alliance:

- Voluntary and Open Membership
- Democratic Member Control
- Member Economic Participation
- Autonomy and Independence
- Education, Training and Information
- Cooperation among Cooperatives
- Concern for Community

We will be a profitable trading entity balancing our trading activities with a Cooperative ethos and concern for the highest environmental and social standards.

We see many benefits in using a cooperative structure and committing to community-ownership:

- **Community Engagement** –Research by Wessex Community Assets has found that investors in community share schemes are more excited by the feeling of ownership than the monetary returns they may earn.
- **Locally based** – the Society will retain profits to re-invest in expanding its services for the benefit of the local area and the local economy. We fully expect the majority of shareholders will come from the local area so any return on investment will also remain in the local area and local economy.
- **Sustainable development** – Research in Scotland demonstrates that cooperatives are generally more environmentally conscious than other businesses, even those whose core business is not an environmental service. ("Saving money, saving the Planet", Triodos Bank and Scottish Social Enterprise Coalition, Sept 2007).
- **One Member, One Vote** – The poorest are not excluded from energy security/low carbon lifestyles by a lack of capital. The pooling of resources to a central investment pot allows investment by independent criteria (e.g. CO_2/£) rather than by the demands of capital. Ownership by all stakeholders on a one-stakeholder-one-vote basis will facilitate wide public ownership and encourage investment regardless of wealth.

Founder members

The Cooperative has been founded by a group of individuals from a range of professional backgrounds who have all put our time and energy into developing it voluntarily, and believe in the power of the Bristol community to create alternative business solutions that effect real change. We are:

Thomas Beale – Freelance social enterprise advisor, currently working in the Social Housing sector in Bristol, and as a grants assessor for the Local Food Fund.
Emilia Melville – Sustainability engineer at Buro Happold, with past experience of co-operatives as employee of a housing co-operative.
Andy O'Brien – Founder and former chair of Sustainable Westbury on Trym, part of Transition Bristol. IT project manager by day.
Andrew Lee - Architectural technician, New-Build Domestic Energy assessor, and Code for Sustainable Homes assessor at NOMA Architects Ltd.
Daniel Oliver – Independent social enterprise researcher, with 6 years experience of developing city partnerships in green business for Bristol Green Capital and Low Carbon South West.
Mark Corbin – Passionate about social design and ethical and innovative business models, with recent experience of online tools and democratic participation.

These founder members form the initial Board of Directors of the Cooperative. However, from the first Annual General Meeting, the Board of Directors will be elected annually from the membership.

Membership

The launch of the share offer will provide the opportunity for any person, corporate body or nominee of any unincorporated organisation that supports the objects of the Society and who has paid or agreed to pay the minimum shareholding of £50 to apply for membership of the Society, although the Board may refuse any application for membership at its absolute discretion.

The Society will operate in line with the Cooperative principle of one-member-one-vote, regardless of how much share capital a member holds, in contrast to companies, which operate to the principle of one-share-one-vote. Members of the Society have the collective right to appoint and dismiss directors, accept or reject directors' recommendations and to determine the affairs and rules of the Society.

The assets of the Society are protected by an **Asset Lock,** guaranteeing that the assets of the Society are permanently dedicated to the aims and objectives of the Society. This prevents disposal of the assets for the sole purpose of providing private gain to shareholders. A Community Benefit Society has the same asset lock as a charity and Community Interest Company.

As an incorporated entity the members have **Limited Liability**. The liability of the members is limited to the amount of their shareholding.

Staffing

Bristol Energy Cooperative expects to employ a part-time member of staff whose role will be to monitor the installations and Feed in Tariff income, day-to-day operations and administration relating to both the membership and the Board. It is very much expected that the Board will play an active role in the management and strategic development of the Cooperative.

Premises

Bristol Energy Cooperative currently uses deskspace kindly provided by Altereco Alternative Energy Solutions Ltd, Bristol.

4. Products and services

Solar PV installations on community buildings

Bristol Energy Cooperative's first goal is the purchase/installation of 39KW of solar PV systems by July 2012 on two community buildings: Hamilton House in Stokes Croft, and Knowle West Media Centre. The systems will be owned and maintained by the Cooperative for a period of 25 years, during which time the community buildings will benefit from free/highly subsidised green electricity at point of generation whilst signing over the Feed in Tariff to the Cooperative.

The government-secured Feed in Tariff scheme will provide an ongoing revenue stream from the installations, tied to inflation and guaranteed for 25 years. There are two main parts to the Feed in Tariff:

- The **generation** tariff - this pays a set rate for each unit (or kWh) of electricity generated by the system, regardless of who uses it.

- The **export** tariff - once up and running, the system feeds electricity first to the building it is wired into. But if the building cannot use all of the electricity generated by the system, the remainder gets exported to the National Grid and an extra amount is paid for each unit exported. This is the export tariff.

Once the system has been registered, tariff levels are guaranteed for the period of the tariff (25 years for Solar PV) and are index-linked to the Retail Price Index. The Feed in Tariff scheme is in constant review. The tariff rates were reduced in December 2011 and are due to be reduced again at the end of June 2012.

The chosen buildings have been selected to:

- ensure successful project delivery, minimising risk and maximising value for money.
- attract a wide range of stakeholders and potential investors to the community share offer.
- engage both those who would be able to afford significant investments and those less wealthy sectors of society.

Our financial modelling shows that with these 2 investments will leave the Cooperative with capital to re-invest in further phases of development to expand the services of the Cooperative. These could include provision of solar PV installations to domestic buildings, the generation of electricity from other renewable sources, taking advantage of the Renewable Heat Incentive, and making use of the Green Deal to support energy efficiency measures.

Community buildings – roof leases

This first phase of development will be delivered in partnership with at least two community buildings in Bristol. The organisations involved have worked with the Cooperative to develop the technical specifications of the systems.

Our customer agreement utilises principles laid out in the Feed in Tariff scheme, namely:

- Under the scheme the tariff income (which is guaranteed for 25 years by the government) is assignable to a third party.
- The solar installation is subject to standard property ownership rights.
- The owner of the system does not have to be the building tenant / owner on which the system is installed.

These principles allow the Cooperative to be party to a contract with both the building tenant and building owner to install a PV panel system onto their roof space and assign the tariff income to the Cooperative.

The roof leases will be registered at the Land Registry to record the 25-year tenure of the system. In the event of a sale of the property, the system cannot be removed without consent of Bristol Energy Cooperative and the building owner/tenant.

After the 25-year term of the agreement, the panel ownership is transferred, free of charge to the building owner who can then benefit from future power generation from the system.

Survey and site approval

All the buildings with whom we are in advanced discussions receive a site visit and corresponding quote for solar PV installations from a local PV installer. Following this, we commission a detailed structural survey, also from a local firm. Based on site specific data the surveyor completes a survey of the property including:

- the inclination, height and area of the roof
- the suitability of the area
- whether the property has had or is likely to have roof/loft modifications

Planning and building control

Once the technical specification process is complete, there then follows working up all the required drawings and details for a planning application if required, system design, and technical director sign-off. This is provided pro bono by a number of professional qualified architects and architectural technicians.

Installation

The contract to deliver the identified systems is awarded to a local solar PV installer accredited to the Microgeneration Certification Scheme (MCS). The installer prepares, delivers and installs the appropriate kit for the site, which broadly includes:

- Panels
- An inverter converting the generated current from DC to AC which can then be used in the house or exported to the National Grid
- Monitoring equipment to record how much electricity is being generated

Receiving Feed in Tariff income

The installer arranges the entry of the system into the MCS database, and energy companies provide the Feed in Tariff payments to the Cooperative quarterly.

5. Market Analysis

Evidence of need & demand

To understand and fully evaluate the market, we have:

- Undertaken a desk-based study of available policy and strategy from key national, regional and local bodies, including DECC, Forum for the Future and Bristol City Council.
- Undertaken a macro-scale analysis of energy demand and supply, and developed an estimation of the size of the market.
- Conducted an examination of other players in the market, including: installers / suppliers; other revolving funds / community based enterprises; other roof leasing services.
- Actively researched and evidenced demand for the services offered by our Cooperative.

Current policy context

The twin challenges of Climate Change and Peak Oil pose the most fundamental of threats to the sustainability of Bristol. As a city we emit 2.2m tonnes of Carbon Dioxide annually, and Bristol's economy and infrastructure are built on the availability of cheap oil. The task of reducing emissions from the UK's public and private buildings has never been so important, or so challenging.

Nationally, the UK Carbon Plan[1] of March 2011 commits the UK to 80% reduction of carbon dioxide emissions (1990 levels) by 2050, through a number of measures including a secure mix of low carbon, renewable energy. The plan predicts that around 30% of our electricity production must come from renewable sources by 2020 (from 10% today); and forecasts investment in the UK's energy generation infrastructure of around £110 billion. Feed in Tariffs of one kind or another are a central aspect of this target.

Bristol City Council has also set clear local targets for carbon reduction, retrofitting, energy efficiency, and locally energy production, and endorsed the finding of the Peak Oil report commissioned by Bristol's Green Capital Momentum Group. The Council has also begun to develop plans for large-scale investment in local energy infrastructure with support from European funding streams. This will result in the establishment of a municipal power company.

Bristol's emerging community energy sector, including the Centre for Sustainable Energy, Bristol Green Doors, Bristol Energy Cooperative, Bristol Energy Network, Bristol Solar Group, Bristol Power Coop, and local sustainability groups across the city, has been integral to the development of the Council's plans, and it has committed to a partnership approach and a diverse make-up of the energy sector in Bristol. The Council's plans offer opportunities in procurement, borrowing and investment.

[1] http://www.decc.gov.uk/en/content/cms/tackling/carbon_plan/carbon_plan.aspx

Market context

Bristol uses 9 billion kWh of energy each year, at a cost of upwards of £700 million - money that flows straight out of our local economy and out of our control.

Our ability to work together towards a sustainable, low-carbon future is compromised by the lack of control we have over the provision of our basic need for energy.

Our task is to put the power back in the hands of the people of Bristol to choose its future for itself, by putting energy technology into democratic, community ownership. There are a number of factors which make locally-scaled energy services a viable and exciting proposition:

- The requirement to meet the UK and Bristol-wide carbon reduction targets described above.
- The Southwest has the highest level of solar radiation of any region in the UK.
- There is a significant renewable energy industry in the SW and especially Bristol. Within that industry there is a huge appetite to create local / regional jobs and build local / regional expertise.
- The growing popularity of community investment structures. We have been much encouraged by recent similar share offers in other parts of the UK that have been successful. These include:

  Bath and West Community EnergyBaywind (Cumbria)
  Boyndie Wind Farm Co-op (Scotland)
  Brighton Energy Co-Op
  Brixton Energy Co-op
  Community Power Cornwall
  Ouse Valley Energy Services Company (Sussex)
  Westmill Wind Farm Co-operative (Oxfordshire)

  The above projects use various financial and organisational models. A detailed report by Forum for the Future ("Funding revolution - A guide to establishing and running low carbon community revolving funds") gives an excellent overview of the options available, including the model we intend to follow. The report is in Appendix C.

6. Marketing Plan

Target market

Our initial target market has been community buildings with roofs suitable for solar PV installations, where the owner/tenant is willing to lease the roof space to the Cooperative. They also sign over the Feed in Tariff, and in return receive free/highly subsidised green electricity at the point of generation. For later phases of the project, the target market could potentially be wider, including:

- Private home owners.
- Further community/public infrastructure such as schools.
- Businesses (including registered providers of social housing, Bristol City Council buildings and private landlords).

Identifying community buildings to join our scheme

Bristol Energy Cooperative is in contact with local Transition / sustainability / climate action groups. Through these and other contacts we identified 15-20 potential buildings, and made initial contact with them. We then narrowed these down, and at the time of the Feed in Tariff changes last December, had around 10 buildings that were promising candidates, and were at differing stages of our selection and technical process. These included:

- Faithspace
- Hamilton House
- Ivy Church
- Kebele Community Co-op
- Knowle West Media Centre
- Shirehampton Hall
- The Folk House
- Trinity Arts Centre

Ideally the Cooperative would have taken all these buildings to a share launch, but the uncertainty created by the rapid changes to the solar PV Feed in Tariff tariffs (subsequently ruled illegal in the courts), along with the reduction in the tariffs and the addition of new requirements for the buildings to meet Energy Performance Certificate level D, meant that many buildings on the short-list were no longer suitable. Either they no longer qualified for Feed in Tariffs, or the financial returns were too marginal to proceed with. This has been a source of immense frustration. The Cooperative continues to monitor the situation, and is still in discussions with several building owners, with whom we had built up good relationships, and worked with on related energy-efficiency projects.

The Cooperative has however been successful in taking two buildings onto the next stage: Hamilton House and Knowle West Media Centre.

Hamilton House is in Stokes Croft, a vibrant community hub ‘where art, music, enterprise and innovation cluster as a community rising to the challenges of today and tomorrow’.

Knowle West Media Centre (KWMC) is based in South Bristol and supports individuals and communities to get the most out of digital technologies, music, media and the arts.

Promoting the share offer

Since March 2011, we have consistently held and attended appropriate events to raise awareness of the Cooperative. These have included the following:

- 'Public launch' at Bristol Energy Network event, 2nd March 2011
- 'Build your own solar panel' workshop at the Harbour Festival, 29-30th July 2011
- Sustainable Business Breakfast, 6th September 2011
- Green Capital Momentum debate, 22nd September 2011
- Renewable Energy workshop at BrisFest, 24th September 2011
- Schumacher Festival, Renewable Energy workshop, 9th October 2011
- Bristol Energy Network stall at Bristol Love Food Festival, 31 March 2012

In addition, the Cooperative has attended regular Bristol Energy Network events, a 'Happy City initiative' event, and is part of a community energy exhibition at the Create Centre, which will be touring different community centres. The Bristol Evening Post is also keen to cover the project.

As a result of these activities, the Cooperative has built excellent links with local networks and organisations who will help support and promote the share offer. It has also developed its own mailing list of around 200 supporters. It will also instigate a grassroots-led marketing campaign in partnership with the community buildings already signed up to or interested in the project.

7. Finance

Financial model

This section gives an illustrative overview of the financial model for this project. Figures will change each year with inflation. A fuller financial forecast can be downloaded from the Cooperative's website.

In a starter share-offer, the Cooperative is seeking £87,800 from members across Greater Bristol to fund solar PV on two community buildings:

- To buy 20kW of the solar PV installation on the roof of Hamilton House in Stokes Croft.
- To install 19kW of solar PV on the roof of Knowle West Media Centre.

In total, the systems will provide around 28,000kWh per year (enough to power six average houses, and save 16 tonnes of CO_2 each year, more than 400 tonnes over their 25yr+ lifetime).

Hamilton House: In December 2011 the Cooperative partnered with the installer Ethical Solar to install 20kW of solar PV. Ethical Solar financed the installation and has given the Cooperative the option of buying the panels, and therefore the generation tariff income, from them.

The system consists of 85 x 230Watt Innotech panels and two 3-phase inverters. The total system size is 19.55kW. The panels were installed just before the December cut-off date for the higher rate of Feed in Tariff income. A separate, additional 20kW was installed by Bristol Power Coop using loan finance.

Knowle West Media Centre: These panels will be installed and registered before the end of June this year, and be safe from future reductions and changes to the Feed in Tariff. The system consists of 82 x 230Watt Innotech panels and one inverter. The total system size is 18.86kW.

Hamilton House will continue to receive free clean electricity for the lifetime of the system (over 25 years) at point of generation, reducing energy bills for Connolly and Callaghan (owners) and helping to support the Coexist community of organisations which use the building. Knowle West Media Centre will receive highly subsidised green energy for the lifetime of the system at point of generation, substantially reducing its energy bills.

The Cooperative will own and maintain the installations for a period of 25 years. At that point, ownership will transfer to the building owners (Connolly and Callaghan and Knowle West Media Centre) who will benefit from further free electricity generation.

Capital costs

Hamilton House: The cost of the purchase and installation of 20kW of installed capacity was £56,329, including VAT. The Cooperative is able to buy all or part of the installation, and the associated Feed in Tariff income, from Ethical Solar.

Knowle West Media Centre: The Cooperative has received a quote for the purchase and installation of 19kW installed capacity on the roof of Knowle West Media Centre at £31,502 including VAT.

Solar Readiness Fund: Because of the additional pressure on the government Feed in Tariff, the Cooperative would also like to raise a fighting fund for installations on a similar basis to the Knowle West installation, at a community or domestic scale.

Indicative revenues from the project

The amount of revenue generated by the project will depend on the amount of sunlight for any given year which, in practise, will vary from year to year. The Cooperative's estimations are based on conservative models, and assumed a loss of efficiency of 1% per year.
Annual revenue from these installations will consist of:

a) Feed in Tariff payments for all energy generated. From the already commissioned Hamilton House installation this is at the higher rate of 32.9p/kWh, an estimated £4,920 yearly, and from Knowle West Media Centre at the new rate of 15.2p/kWh, estimated at £2,150 yearly.
b) Feed in Tariff payments for energy exported from Knowle West Media Centre (The export tariff from the Hamilton House installation has been assigned to the building's owners, Connolly and Callaghan). Without installing an export meter, this is estimated to be 50% at 3.1p/kWh, totalling £220 per year.
c) A contribution of £100 per year from Knowle West Media Centre out of energy savings made. This has been set at a level that still ensures significant energy savings for the Centre.

Ongoing expenditure associated with the installation

- Costs necessary to sustain the basic running of the Cooperative at not more than £1,100 per year. This includes the cost of administering shares and distributing interest payments, preparation of annual reports and holding the AGM.
- Insurance and maintenance cost of the systems at not more than £700 per year. The panels will be insured against damage, loss of income and public liability. They have a manufacturer's guarantee, and are very low maintenance but will require occasional checking.
- Removing and replacing 10kW of the Hamilton House panels once during building work – a one-off cost of at most £4,000.
- The inverters will need replacing once over the lifetimes of the systems. A sinking fund for their replacement will be set aside out of annual income, at just over £600 per year.

How the business will be financed

As an Industrial and Provident Society (Community Benefit Society), the Cooperative will utilise the ability to raise withdrawable share capital through a community share offer. Withdrawable share capital is a special form of share capital that can be withdrawn by members, subject to the conditions laid down in the rules of the Society.

Membership of the Cooperative is subject to a minimum shareholding requirement of £50 and individual members cannot have a shareholding in excess of £20,000, although there is no limit on the shareholding of one IPS in another IPS.

This is a long term investment. It is unlike investment in a for-profit enterprise where the investor seeks to share in profits through dividends and make capital gains from an increase in the value of shares held which are freely marketable.

- The shares in a Community Benefit Society are not transferable, and the value of any shares cannot increase beyond their nominal £1 value and may be reduced if liabilities exceed assets.

- Shares cannot be sold. Shares can be withdrawn by giving 3 months notice of withdrawal to the Society. This cannot take effect until 1 year has elapsed from the date the Society begins trading. Withdrawal will be at the discretion of the directors who will judge if the Society is trading profitably and has adequate cash reserves to fund withdrawal.

- The Society cannot be sold for the benefit of its member shareholders, and there is a statutory asset lock.

An IPS community share offer is exempt from regulation by the Financial Services and Markets Act. IPSs are treated differently from companies, including Community Interest Companies, when they promote community investment in the form of withdrawable share capital. These exemptions make if far cheaper to use IPS legislation than company legislation.

This investment should be considered as an opportunity to contribute financially to the community with the expectation of a social dividend rather than just a financial reward.

Distribution of annual profits

The Cooperative anticipates an annual profit from this project of around £5,000 per year. The members will determine at each annual general meeting how to distribute these profits. The Directors propose that this annual profit is used as follows:

- Provision for payback of initial invested capital, either direct payback through shares withdrawn, setting aside capital in fixed-term deposits, or re-investment.
- The remainder to be divided between interest payments to all member-investors of up to but not more than 4%, and put towards furthering the aims of the Cooperative.
- Members have the option to waive part or all of their interest payment or assign it to a particular project.

Other finance secured

Bristol Energy Cooperative secured funding from Bristol City Council's **Community Energy Catalyst Fund**. This has enabled the Cooperative to pay for appropriate external professional services which may otherwise have been real barriers to the Cooperative launching.

Additionally, the **Cooperative Enterprise Hub** funded two days support with regards to the financial modelling of phase 1 developments that was delivered by Brian Titley of Cooperative Assistance Network.

The future

Bristol Energy Cooperative intends to make other investments in renewable energy and energy efficiency projects through re-investment of capital. We would like this to be the start of a democratic investors' cooperative able to assess and invest in viable projects which contribute to the aims of the Cooperative. The directors intend to invest in future projects with the agreement of members and where the return to members is in total at least comparable to what we anticipate being able to provide in this share offer.

Enterprise Investment Scheme

The Enterprise Investment Scheme (EIS) is designed to help smaller higher-risk trading companies to raise finance by offering a range of tax reliefs to investors who purchase new shares in those companies. Further details can be found on the HMRC website: http://www.hmrc.gov.uk/eis/

The Cooperative is working to ensure that its shares are eligible for EIS tax relief, which allows investors who do not withdraw their investment for three years from the start of trading to set up to 30% of their investment above £500 against income tax liability.

Main assumptions

- 100% of capital raised through community shares.
- Aim is to offer an annual 4% interest on shares from the first year after successful installation.
- No withdrawal of shares for the first year.
- Straight line depreciation over 25 years.
- 100% inverter change-out in year 12 of any installation.

Targets and contingencies

Following the closure of this share offer on 18th May 2012, or later if the directors decide to extend the share offer, the Co-operative will identify the amount raised and proceed as follows:

- If the target investment of £87,800 has been raised, the installation of 19kW on Knowle West Media Centre will go ahead, along with the purchase of the 20kW system on Hamilton House from Ethical Solar.
- If between £31,502 and £87,800 is raised, then the installation of 19kW on Knowle West Media Centre will go ahead, and we will purchase a smaller proportion of the Hamilton House solar panels.
- If the amount raised is between £28,185 and £31,502, we will purchase 10kW (half) of the Hamilton House panels.
- If the amount raised is below £28,185, we will return all investment.
- If significantly more than £87,800 is raised, we may use the additional investments as a fund to install solar on other roofs on the same basis.

As the Knowle West Media Centre installation has only recently been confirmed, the Directors may extend the share offer at their discretion to allow more time to raise what is now a larger sum of money than previously envisaged.

Risks and threats

The success of the first phase development relies on a number of factors:

- Raising sufficient capital through the community share issue. We have had a number of informal approaches over the past months from significant potential investors and lenders to the project, which have given us confidence that the model is sufficiently attractive to attract investment.

Here are other key financial, operational and technological risks, with mitigating factors:

FINANCIAL RISKS		
ISSUE	OBSERVATION	COMMENT / Mitigating Factor
Trading history	As a start up business, the Company does not have a track record of delivering results in line with forecasts	The forecasts are based on income from Feed in Tariffs, a well-established scheme in the UK.
Achievability of forecasts and technology used	There is a risk, given that the Cooperative does not have a track record in this industry, that the levels of generation forecast may not be achieved	We have worked closely with existing solar PV installers in producing the figures, and believe the forecasts are conservative.
Investment	The share issue may not raise sufficient capital	The share offer has had a year's preparatory promotion, and good links have been established, and many pledges have already been made.
Lack of installers	The Cooperative won't find enough installation companies to put the panels up.	We have good connections with a large number of local contractors who have already been providing input to the project.
Lead in times for Installations	There may not be enough time between commissioning the installations and the ability of the installers to deliver.	We have good connections with local contractors who are able to react quickly.
Planning permission	Planning permission may be difficult to achieve for solar installations.	This should not be an issue given recent changes to planning procedures that have made the default response positive. The Council is fully supportive of renewable energy generation.
Grid connections	There may be difficulties with connections to the grid.	This should not typically be an issue given the urban nature of our sites.
Inflation	The generation and export tariffs are indexed by the government annually using RPI. There is no protection afforded to investors against	The annual interest on shares may fall.

	deflation.	
Impacts of future projects on investment return	Future projects that Bristol Energy Cooperative undertakes may affect its ability to pay interest to existing shareholders.	Such projects will be approved by members, and it is the intent of the directors to advise that these projects in total provide at least a comparable rate of return with the initial project
OPERATIONAL AND TECHNICAL RISKS		
The system is not reliable	The business model and investment value is reliant upon the PV system being reliable over the contractual period of 25 years and therefore requiring minimal maintenance levels	The components used within the system are of a high specification in order to achieve the assumed generation level and low maintenance costs. Planned replacement of certain elements (the inverter) have been factored into the finance model.
The system may not perform in line with expectation	Failure to achieve the forecast generation levels would negatively impact the investment value of the system. There are two potential risks: – historical light data is not accurate – low performance at an individual system goes unnoticed	Ensure the on-going performance monitoring of all installed systems. This is a standard feature built into all installations. We will encourage the roof owner to adopt better energy efficiency.
Theft/damage to solar panels	The panels may be stolen or damaged (accidentally or intentionally)	Insurance policies to cover against these possibilities will be taken out. These costs have been factored into the finance model.
The panels need to be removed	The roof owner / tenant may require the panels to be removed in the event that there is damage to the roof	Any damage to the roof will be covered by either the roof owner / tenant's building insurance policy or specific insurance policies that the Cooperative takes out on their behalf.
The panels are unexpectedly removed.	The panels are removed by the roof owner / tenant without permission	The roof leasing contract agreement in place between the Cooperative and the roof owner / tenant guards against this.

8. Future developments and opportunities

Phase 2 – Potential investment in other renewable energy installations

The Cooperative is actively researching other renewable energy technologies, and talking to potential project partners, with the aim of further developing our own energy infrastructure.

Potential phase 2 developments could include:

- Solar PV on domestic houses or commercial buildings.
- Other renewable energy projects such as wind, hydro, biomass, marine and anaerobic digestion.
- Projects supported under the upcoming Renewal Heat Incentive such as solar thermal and heat pumps.

Phase 3 – Potential investment in energy efficiency measures

Whilst energy-efficiency does not typically offer a return on investment equivalent to that available for renewable energy, it usually produces the best carbon savings per pound, and is therefore crucial to the Cooperative's plans.

A variety of public and private sector programmes have delivered a great deal of energy efficiency work across the UK. However, the Energy Saving Trust estimates that a further 7 million houses, and many public buildings, will require retrofitting in the next 10 years alone, equivalent to 2,300 a day.

The Government's upcoming Green Deal scheme is designed to accelerate this process, and the detail of the scheme is now beginning to emerge. The Cooperative has already carried out energy efficiency work with some of its community building partners, and will be making best use of the Green Deal and related schemes once they are up and running. We are already in discussion with the Bristol Credit Union regarding running suitable schemes for low-income households.

9. Appendices

Appendix A	Bristol Energy Cooperative rules
Appendix B	Cooperatives UK's guide to community investing
Appendix C	A guide to establishing and running low carbon community revolving funds