

Brixton Energy Co-op

UK – Brixton

OWNERSHIP	PRIVATE
Program authority	Lambeth Council
Program Delivery unit	Repowering London
Implementation Model	Separate contractor based
Operating Services	Marketing Aggregation Facilitation Financial advice Assessment
Type of projects	Renewable energy Energy Efficiency (building retrofits)
Ambition/targets	Unknown
Beneficiaries	Citizens
Funding Vehicle	Citizens
Financial Instruments	Equity

Summary

Brixton Energy is a not-for-profit cooperative initiative to produce renewable energy through solar PV panels in the South London area of Brixton. It is an example of a so-called REScoop (Renewable Energy Sources COOPerative). The program has allowed the creation of cooperatively owned renewable energy projects, called Brixton Energy Solar 1, Solar 2 and Solar 3. For each of them, a cooperative limited society, owned by the (citizen) investors, is created.

The program itself is run by a not-for-profit organization, called Repowering London, which specializes in facilitating the set-up of the projects.

Citizens finance the projects. Part of the profits of the solar projects are invested in a Community Energy Efficiency Fund (CEEF). The fund is used to improve the energy efficiency of the housing stock in London. The co-operative members together with the community develop the energy saving initiatives in the area. Brixton Energy Solar 1, Solar 2 and Solar 3 demonstrate a best practice in energy savings with their broader social approach. They target via their projects the households who need it the most, e.g. in social housing where energy poverty is a real issue.

For every new project a new share offer is opened to raise sufficient funds. This is open to all British citizens, prioritizing local residents in the case of oversubscription. The community share offers last five weeks, which turns out to be sufficient to raise the money needed.

The expected return on investment is about 3-5%, although it is not the financial benefits that are the most important, but rather the creation of well-being in the community.

The solar projects serve as the means to build a resilient community. Every new project and new REScoop is a “new journey” where new community members are involved in its development. The REScoop raises awareness about energy efficiency and wants to tackle fuel poverty. In addition they provide training and employment for the local people.

The project is not only about renewable energy production or saving of kilowatt-hours. It is also about improving the resilience of a local community. Repowering London wants to create resilience by educating and training young people in the community. Every solar project also offers internships to students, ranging from IT specialist to law students and offers work placements on its renewable energy installation. The aim is to get members of the community involved to learn the trade.

How does it work?

The electricity of the power stations is sold to the grid and partly used on site for communal use at the housing estates. The UK Feed-in Tariff is the principal source of income. This scheme requires electricity suppliers to pay a Generation Tariff of approximately 0,13 £ (0,17 €) per kWh for all the electricity that is generated over a guaranteed period of 20 years. In addition, any surplus that is exported to the grid is eligible for an Export tariff of 0,045 £ - 0,051 £ (0,060 € - 0,065) per kWh. Energy used on site is sold under a separate power purchase agreement (PPA) to the estate at discounted prices.

From every project 20% of the total net profits are set aside for the Community Energy Efficiency Fund (CEEF), which is set up to support energy saving projects and promote energy efficiency. The goal is to make this fund a self-sufficient platform that can exist without government subsidies. The money from the CEEF is used for promotion and installation of relatively low cost energy efficiency measures.

The community members and the co-op members decide which projects (or measures) will be funded. This includes individual home audits, energy surveys, advice sessions and community events. Community members help their neighbours to implement simple changes. This starts with getting a better insight in their own home performance (with an audit), and simple cost saving opportunities such as switching to another cheaper supplier (best prices), draught proofing and changing the lighting.

The CEEF is intended to support the delivery of initiatives like:

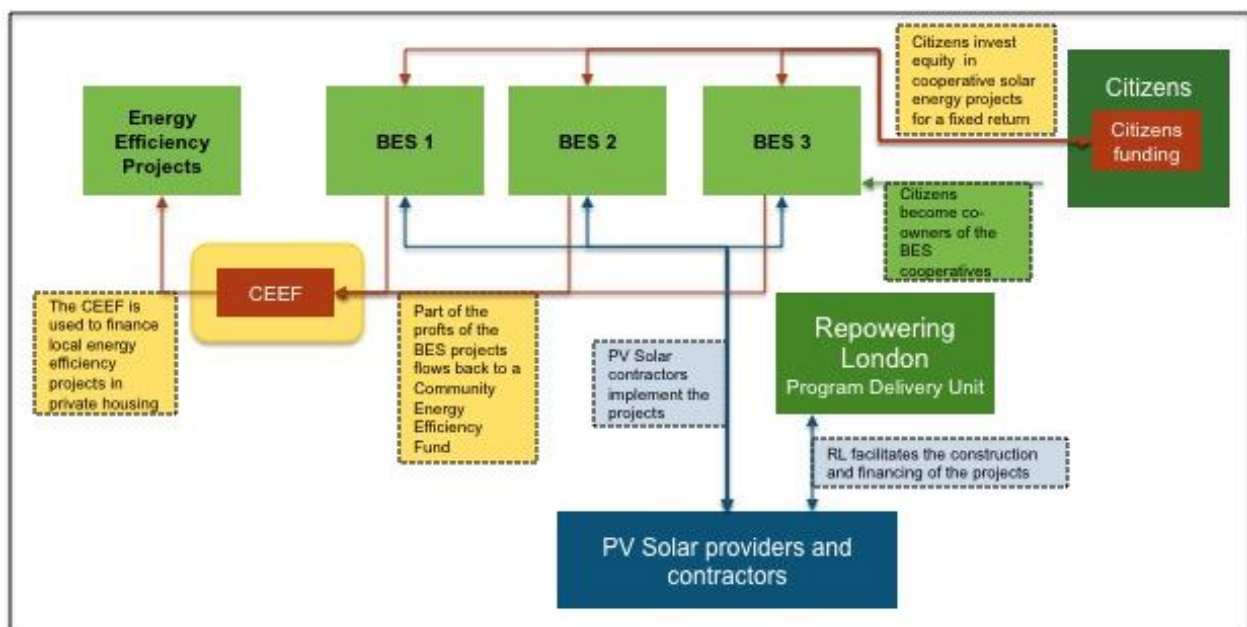
- The promotion and installation of relatively low-cost energy efficiency measures, such as ‘draught-busting’
- Information and guidance about opportunities to install more substantial measures, such as those proposed in the Government’s Green Deal
- Local workshops to explore day-to-day practical opportunities and lifestyle changes to reduce energy consumption and costs

The directors are intending to use this fund in order to improve the energy efficiency of the housing stock in Loughborough Estate and Brixton as a whole. The use of the CEEF is determined by the

members of the Co-operative and overseen by its directors. Initiatives will be developed with the local residents and community groups such as the Loughborough Tenants and Resident Association and by voting from the full Co-operative members. Projects will be delivered through association and co-production with local residents.

As a co-operative member of Brixton Energy Solar projects, citizens are eligible for tax relief under the Seed Enterprise Investment Scheme. Pursuant to this scheme, qualifying investors can claim a tax relief of 50% of their investment. The relief is given by way of a reduction of tax liability, providing there is sufficient tax liability against which to set it. This tax relief is in addition to the financial return and contribution to the CEEF.

Fig 1. Operational and financial model



The program delivery unit

Repowering London is the program delivery unit and acts as programme marketer, project aggregator, facilitator, project financial advisor and assessor.

Repowering London is a not-for-profit organisation that specialises in facilitating the co-production of community-owned renewable energy projects. Repowering started as a constituted voluntary organisation on September 2011 and registered as an Industrial Provident Society (IPS), more commonly known as a Co-operative since 22 March 2013.

Their service includes the following:

- Essential technical, financial, legal and administrative expertise needed to successfully deliver the projects
- A range of guidance, advisory and project management services

- Access to a network of potential investors, ensuring the necessary financial backing for the community owned renewable energy projects

Initial funds and resources came from local and national government grants such as the Greater London Authority Low carbon zone fund, Department of Energy and Climate Change (DECC), Local Energy Assessment Fund (LEAF), Carbon Energy Saving Program (CESP) and Lambeth Council. Repowering London is also supported by several hundred hours of volunteer time.

They work with 11 employees and volunteers.

Legal structure	Not-for-profit organisation
Shareholder description	Unknown
Equity	Unknown
Shareholders	Unknown
Program dedicated staff	11
Program operational costs	Unknown

Organization and partnerships

Brixton Energy Solar 1, 2 & 3 Co-operatives have been developed in partnership with the following organisations:

Transition Town Brixton

Transition Town Brixton (TTB) a community-based movement with a practical approach to preparing for a low-carbon future. For the last couple of years, TTB have been exploring ways of increasing energy efficiency and using renewable energy in Brixton. Brixton Energy is aligned with the aims of the Transition movement.

The Brixton Pound

The Brixton Pound (£) is money that is anchored to Brixton. It's designed to support Brixton businesses and encourage local trade and production. It's a complementary currency, working alongside (not replacing) pounds sterling, for use by independent local shops and traders.

Lambeth Council

Lambeth Council strives to give people more involvement and control of the services they use and the places where they live by putting council resources in their hands. Brixton Energy Co-operative will see residents generating their own energy and reducing carbon emissions realising Lambeth Council's ambition of moving towards a Cooperative Council.

United Resident Housing

United Resident Housing and Loughborough Estate Management Board have been early champions of Brixton Energy Solar 1. Their support has been instrumental in the development of the project by agreeing to the installation of solar panels on the roofs of the Loughborough Estate.

Southern Solar

Southern Solar are specialists in the design, installation and maintenance of solar thermal and solar electrical systems. Southern Solar believe that renewable energy and energy efficiency have a big role to play in helping the UK to reduce its' dependency on fossil fuels and its' impact on the environment.

Beneficiaries

Beneficiaries	Public sector (municipalities)
Type of projects	Energy Efficiency (building retrofits)
Operational support	EPC Projects facilitation through the program delivery unit
Financial support	Facilitation of loans through the Municipal Bank of Norway Facilitation of grants through the ENOVA energy agency

Funding mechanism

Program delivery unit funding	Initial funds and resources came from local and national government grants such as the Greater London Authority Low carbon zone fund, Department of Energy and Climate Change (DECC), Local Energy Assessment Fund (LEAF), Carbon Energy Saving Program (CESP) and Lambeth Council
Projects Funding	Projects are funded through cooperative citizens funding
Funding Vehicle	Citizens
Fund size	Not applicable
Fund type	Not applicable
Fund sources	Not applicable
Financial Instruments	Equity

Results

3 solar PV projects have been implemented:

1. Brixton Energy Solar 1 the UK's first inner-city, co-operatively owned renewable energy project on a social housing estate. The project involved the installation of a 37.24kWp solar power station on the roof of Elmore House on Loughborough Estate in Brixton. The capital cost for the solar photovoltaic (PV) installation was raised through a community share offer. Brixton Energy Solar 1 attracted 103 investors whom mostly live in Lambeth with nine from in and around the Loughborough Estate itself and raised £58,000 in less than a month.
2. Brixton Energy Solar 2, saw the installation of 45kW of solar electric (photovoltaic) panels on the roofs of Styles Gardens, five of the housing blocks in the Loughborough Estate, Brixton. The combined array will save approximately 16 tonnes of CO2 every year by displacing electricity generated by coal and gas power stations. Funding was raised through a community share offer, with an expected average annual return on investment of 3% and up to 50% tax relief under the Government's Seed Enterprise Investment Scheme. The Estate is owned by Lambeth Council and managed by the Loughborough Estate Management Board (LEMB). They secured approval from Lambeth Council to install solar panels on the roofs following multiple consultation events with the residents of the estate in

June and July 2012. They intend for some of the electricity generated from the solar panels to be used by LEMB directly to power the communal spaces in Styles Gardens. The remainder of electricity generated by the project will be exported to the National Grid.

The electricity exported to the Grid will be used immediately by any household or business that has a need for electricity at the time the electricity is available. For instance, during the summer when the panels are producing their maximum output, the project will be producing the equivalent of enough locally-generated solar power for over 70 households on the estate. Unfortunately, it is not possible to provide a direct supply of electricity from the project to the flats in Styles Garden because they are metered individually. However, they intend that these households should be the first beneficiaries of the social fund generated by income from the project, with initial emphasis on draught-busting, other energy efficiency improvements and education initiatives.

3. Using the same community led approach, the solar panels for Brixton Energy Solar 3 have been installed on four buildings within the Roupell Park Estate: Hyperion House, Fairview House, Warnham House and the Community Office. The income from the project will be derived principally from the government's Feed-in Tariff scheme, which is guaranteed for 20 years. Some of the energy generated by the project will be used on site with the remainder energy sold directly back to the grid. After operating costs are deducted, profits resulting from the sale of energy will be used to support local energy efficiency initiatives and provide Co-operative members with an annual return on their investment. The combined array for Brixton Energy Solar 3 (52.5kW installed capacity) is expected to save approximately 22 tonnes of CO₂ every year by displacing electricity that would otherwise be generated by coal and gas power stations.

What has been done so far with the Community Energy Efficiency Fund (CEEF) ?

- Work experience: Brixton Energy Solar 1 Co-op provided Kevin Wilson of Nevil House a two-week work placement with Southern Solar on the renewable energy installation.
- Home Energy Audits: Two home energy audits were conducted at Elmore House and Styles Gardens that included installation of energy saving measures such as energy efficient light bulbs and energy saving power down plugs.
- Energy surveys: During the last eight months, the Brixton Energy team has conducted energy surveys on the estate that demonstrated that more than half of those residents spoken to were interested in information on saving money on energy bills and related project activities.
- Energy Advice sessions: Six energy efficiency advice sessions were delivered at the Brixton Customer Centre on Brixton Hill. A total of 132 people were spoken to, of which a significant number were spending more than 10% of their income on space heating and electricity.
- Local leadership: Two members of the Brixton Energy management team are residents of the Loughborough estate and continue to be involved in the decision making and development of the projects.
- Community events: The team delivered a series of events that included draught-proofing workshops, information on energy efficiency and advice on reducing costs on energy bills. These events were held at the Transition Town Brixton shared space events at the Loughborough Centre.

Contact details

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Factsheet

General Info

Country	UK
Model Name	Brixton Energy Co-op
Date of creation	2011

Model Description

Ownership	Private
Program authority	Not applicable
Program delivery unit	Repowering London
Operating services	Marketing Aggregation Facilitation Financial advice Assessment
Implementation model	Separate contractor based
Type of projects	Renewable energy Energy Efficiency (building retrofits)
Beneficiaries	Citizens
Geographical coverage	Local

Financial Mode Description

Project funding	Private
Project funding vehicle	Citizens
Financial instruments	Equity
Repayment model	Not applicable

Project risk Profile

Performance risk	Program owner
Recourse	Assets installed
Financial risk	Citizens

Model Requirements

Staff Requirements	Moderate Less than 10 FTE
Equity or funding requirements	Unknown

Model Key indicators

Investment volume since creation	Ca 210 k€ (270 k€)
Size of project (or project portfolio)	60 k€ – 80 k€ (80 k€ – 105 k€)
Level of average energy savings	Not applicable

Development maturity

Development/implementation stage	Mature
Operational development maturity	Mature
Financial development maturity	Mature

Model Qualification

Level of establishment	Well established
Growth of potential	Moderate
Scalability of the model	Moderate
Replicability of the model	High
Impact on public balance sheet	Low

Sources

<https://brixtonenergy.co.uk>

<http://www.repowering.org.uk>

https://www.youtube.com/watch?v=j4CwDrR_NIE

RESCOOP, Foster social acceptance of RES by stakeholder engagement, Part 2, deliverable 2.3.