



# Annual Report 2020

## 1. Generating renewable energy

### Brixton Energy Solar 1

In 2020, the Brixton Energy Solar 1 array on Elmore House generated 15,424kWh of electricity. This is the equivalent of powering 6 average UK homes for a year. The renewable energy output in 2020 saved a total of 3.60 tonnes of CO<sub>2</sub>. For comparison, the generation in 2019 was 26,460 kWh. The reduced generation during 2020 was because an inverter was shut down for the period March to November 2020 due to a failed electrical inspection.

The electrical inspection was undertaken by Ecolution Ltd, and was a requirement of Lambeth Council for their approval of a license for the battery installation. It was paid for by EDF, a partner in the battery project (see below). The safety issues related to damage to the DC cabling for the solar panels to the roof, which was BES 1's responsibility, and an inadequate earthing system on the landlord electricity supply, which was Lambeth Council's responsibility. There were delays in the repairs due to the Covid Lockdown between March and July 2020, and the need for Ecolution to return to site following Lambeth Council's completion of the earthing repairs, which were undertaken at the end of September 2020. Repowering are investigating whether an insurance claim for loss of income could be submitted.

### Brixton Energy Solar 2

In 2020, the five Brixton Energy Solar 2 arrays on Styles Gardens generated 40,057kWh of electricity. This is enough to power 16 average UK homes for a year. The renewable energy output saved 9.34 tonnes of CO<sub>2</sub>. For comparison, the generation in 2019 was 38,209kWh.

### Brixton Energy Solar 3

In 2020, the four Brixton Energy Solar 3 arrays installed on the Roupell Park Estate generated 37,627 kWh of electricity. This is enough to power 15 average UK homes for a year. The renewable energy output in 2020 saved 8.77 tonnes of CO<sub>2</sub>. For comparison, the generation in 2019 was 36,522kWh. Although the output for 2020 was higher than 2019, the systems on Hyperion House and the Community Office are underperforming. Repowering are collecting quotes for potential remedial works and will provide these to BES3 directors in due course.

To calculate the tonnes of CO<sub>2</sub> saved from the electricity generated we have used Defra's carbon factors published in 2020. As a result, the carbon savings from the projects has reduced compared to previous year as the UK electricity fuel mix is using less coal generation and more renewable electricity generation.

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020>

## 2. Engaging with the local community

**Brixton Energy Solar 1**, continues to participate in the development of the innovation trial project 'CommUNITY' (Community Urban Neighbourhoods Internal Trading of energy) that is being delivered with our partners EDF, UCL and Repowering. 'CommUNITY' has been designed to enable the Loughborough Estate residents at Elmore House to access the electricity generated from the solar PV system on the block's roof.

Following the launch of Phase 1 in late 2019, 4 households (out of 13 eligible households) were brought on as full participants. To date over the trial period average bill savings of 19% have been made per household.

As a reminder the project features **peer-to-peer energy trading** that offers

- Solar energy tariff is priced lower than the households existing grid energy tariff
- The discount is distributed as a rebate i.e. credit payment to the residents account
- Applicable to both pre-payment and credit meter customers
- Smart phone app for residents to choose to share or sell solar energy to each other
- Participants trade with one another (peer-to-peer) using blockchain technology

We are very proud to say that Phase 2 of the project has successfully seen the installation of a 10 kW/ 22.5kWh battery following completion of a licence with Lambeth Council. Phase 2 is an extension of the CommUNITY project via a second project called Urban Energy Club and brings on UK Power Networks as a partner. This project brings us one step closer to supplying London homes with community owned solar power. The battery storage is operating at a community scale as opposed to household or grid scale and will also enable BES1 to provide ancillary grid services to the local distribution network owned by UKPN. Participants have been receiving payments of roughly £10 per month as a share of the income received from UKPN for flexibility services.

The project will be completed by 31<sup>st</sup> April 2021 although evaluation will continue with UCL and UKPN until October 2021. CommUNITY has been announced the winner of EDF R&D Prize 2021.

### **Brixton Energy Solar 3 – Energy Local innovation trial**

As mentioned in previous reports BES3 is part of the innovative local electricity supply model 'Energy Local Roupell Park' that has been developed by Energy Local CIC. BES3 is participating with the current partners namely Bioregional, Energy Local, Octopus Energy and Repowering, with support from the Roupell Park Estate Resident Management Organisation (RMO). The project is funded from the Energy Redress Fund and the Department for Business Energy and Industrial Strategy (BEIS).

Despite the challenges of 2020, the incredibly enthusiastic participants of Energy Local Roupell Park will shortly have the opportunity to start switching their electricity supplies to locally brewed solar power through our project partner, Octopus Energy. Similar to a buyer's club, through the Energy Local model residents are able to come together and appoint a shared energy supplier, as well as to decide what local renewable generators should be paid for the green electricity they produce. We are really excited to see how people react to the experience of buying electricity from community owned solar panels they can see out their window, with the added benefit of having a say in the pricing of tariffs. It is estimated that participants will save c20% on their electricity bills.

### 3. Community Fund

During 2020, the Brixton Energy Solar 1 (BES1) and Solar 2 (BES2) Directors worked together to assess applications and award funds through the Community Fund. As agreed by members the funds were structured into two pots.

Pot 1 – funding for projects and groups that engage residents of the Loughborough Estate and the immediate area in the subjects of; climate change, energy efficiency, sustainability or fuel poverty. Applicants were invited to apply for amounts between £100 and £3,000, which could go towards a one-off event or an ongoing project over 2 or 3 years. Funding was allocated to support core costs, project costs or capital costs. Funding was for both new and existing projects. For exceptional projects the Directors considered awarding funding of up to £5,000. Expressions of Interest were invited by May 31<sup>st</sup>, 2020.

Pot 2 – funding for projects and groups that are not related to climate change, fuel poverty or energy efficiency but would benefit residents of the Loughborough Estate and the immediate area. Any community group or project were invited to apply.

During the year 2020, the following funds were awarded (note that the payments of £500 to Brixton Soup Kitchen and Loughborough Community Centre were also reported in last year annual report as they took place in May, after the 2019 year had ended but before the AGM);

#### **Brixton Energy Solar 1**

##### **Pot 1 - £1,500 - Repowering London (Fuel Poverty)**

<https://www.repowering.org.uk/energy-champion-fran-2-2/> -

Repowering's energy advice work is co-funded by UK Power Networks, BES1 and BES2 Community Funds. Repowering's Community Service Support team have been tirelessly working to ensure that no-one is left disconnected from their energy supply or unable to heat their homes. To support Brixton residents, Repowering has successfully applied for funding that let us provide direct financial assistance to top-up prepayment meters and turn the power back on.

During the winter of 2020, 5 households received £170 worth of emergency fuel vouchers funded by the Brixton Energy Solar Community fund. The Repowering team are in discussions with Loughborough Estate Management to support more Loughborough Estate residents to access the vouchers funded by the Brixton Energy Solar community fund. Repowering will also be partnering with the Fuel Bank Foundation to access vouchers on an ongoing basis, we want to ensure no-one has to do without electricity in these difficult times.

2020 has been a challenging year for direct engagement and support and the Repowering team have done a great job of providing one to one support to 32 residents saving them £4,242 through debt clearance and switching). The Repowering Team have also been providing free online training to local organisations, helping them to support their beneficiaries who are struggling to keep the lights on. This has focused on topics such as warm homes discount, distributing fuel vouchers and self-disconnection. The four training sessions delivered in 2020 was attended by 96 frontline staff.

**Pot 1 - £1,500 Loughborough Farm (food growing)**– decision on funding was taken in 2020. Payment was made in 2021 so does not show in 2020 accounts. Funding was used towards;

- support for residents of Styles Gardens to tackle overgrown gardens and start growing food
- distribution of edible plants e.g. tomatoes to support engagement with the farm and food growing
- distribution of growing boxes for winter greens

Due to the changing lockdown rules it was agreed that there would be some flexibility on the timescales and how the funding would be spent. Further information will be provided at the AGM.

**Pot 1 - £500 – Platform Café and Loughborough Farm – food growing and supply**

<https://loughboroughjunction.org/loughborough-farm-community-cafe>

100 edible plants were distributed to local residents to encourage food growing. 50 meals were distributed by Platform Café to those in need during lockdown

**Pot 2 - £500 - Brixton Soup Kitchen (Food distribution)**

The funds were used to help distribution of food in the Loughborough area at the time of the first lockdown (May 2020)

**Pot 2 - £500 – Clear Community Web (Digital Inclusion)**

<https://clearcommunityweb.co.uk/community-tech-support/>

Funding towards advertising and running sessions supporting people to access services online

**Brixton Energy Solar 2**

**Pot 1 - £1,500 - Repowering London (Fuel Poverty) – see above**

**Pot 1 - £1,500 Loughborough Farm (food growing) – see above** (payment was made in 2021 and does not appear in the accounts for 2020.

**Pot 2 - £500 - Loughborough Community Centre @ Max Roach Park (Happy Lunch and Play project)**

[www.lccmaxroach.co.uk](http://www.lccmaxroach.co.uk)

Funds contributed toward delivery for food and activities to 140 children during 15 weeks of lockdown in Spring 2020.



Happy Lunch and Play – delivered food and activities to family during lockdown.

### **Brixton Energy Solar 3**

Working closely with the Roupell Park Estate Resident Management Organisation (RMO), Repowering's Community Champion has distributed almost £2,000 of fuel emergency vouchers to residents of the estate. The fuel vouchers were funded by the Energy Redress Fund secured by Repowering. A perfect example of Repowering solar projects providing a positive local service.

No BES3 community funds were distributed during 2020. We will explore potential projects with the Roupell Park Estate Resident Management Organisation.

## **4. Financial accounts and shareholder payments**

### **Brixton Energy Solar 1**

The financial accounts which accompany this report show that:

The Society received an income of £4,188 from the electricity generated by the array from the feed-in tariff and deemed export tariff. The total income for the year is less than the income received in 2019 (£6,132.57) by 31% due to the inverter being shut down for reasons explained above

After meeting direct operating and administrative costs, we are left with a small surplus of £437 for the year. The Directors propose to maintain our shareholder and community commitments as per previous years. This equates to an interest rate on share capital of 3% for the year (£1,724) and CEEF will get a contribution of £431 from the Co-operative. As result BES1, will report a net loss of £1,718 for 2020 that will reduce accumulated reserves from 2019 (£2,425). We are liaising with our insurers to assess whether we can claim for the loss of income.

During 2020, £3000 were awarded to local community organisations on projects to support the Brixton community. The CEEF also received a further £513 from the 30% of shareholders who have waived their interest payments in favour of CEEF. At the end of the year, including these amounts, the CEEF stands at £10,168 (£12,224 in 2019).

During 2019, no shares were withdrawn from the Society and a total of 57,450 shares are repayable after 25 years.

### **Brixton Energy Solar 2**

The financial accounts which accompany this report show that:

The Society received an income of £7,944 from the electricity generated by the array from the feed-in tariff and deemed export tariff. The total income for the year was similar to the income received in 2019 (£7,581).

After meeting direct operating and administrative costs, a surplus of £3,679 was generated for the year. The Directors propose that £1,530 of this surplus is retained as profit for the year so that the co-operative can continue to build up a small cushion of reserves for the future.

It is proposed that the remaining £2,149 is split 80% to pay shareholders interest and 20% to the Community Energy Efficiency Fund (CEEF). This equates to an interest rate on share capital of 3% for the year (£1,719)

The CEEF will get a contribution of £430 from the Co-operative and a further £98 from the shareholders who have waived their interest payments in favour of CEEF. During 2020, £2,000 were awarded to community organisations on projects to support the Brixton Community. At the end of the year, including these amounts, the CEEF stands at £9,175.

During 2019, no shares were withdrawn from the Society and a total of 57,300 shares are repayable after 20 years.

### **Brixton Energy Solar 3**

The financial accounts which accompany this report show that:

The Society received an income of £9,059 - from the electricity generated by the array from the feed-in tariff and deemed export tariff. The total income for the year is higher than the income received in 2019 (£7,123).

After meeting direct operating and administrative costs, a surplus of £4,131 was generated for the year. The Directors propose that £1,828 of this surplus is retained as profit for the year so that the co-operative can continue to build up a small cushion of reserves for the future.

It is proposed that the remaining £2,303 is split 80% to pay shareholders interest and 20% to the Community Energy Efficiency Fund (CEEF). This equates to an interest rate on share capital of 3% for the year (£1,842)

The CEEF will get a contribution of £461 from the Co-operative and a further £24 from the shareholders who have waived their interest payments in favour of CEEF. At the end of the year, including these amounts, the CEEF stands at £2,795.

During 2020, no shares were withdrawn from the Society and a total of 61,400 shares are repayable after 20 years.

## **5. Our partner, Repowering London**

### **Development of micro AD and solar PV at LJ Works in Brixton**

While the development of these projects is being led by Repowering we wanted to give members an update as the projects are located close to the Brixton Energy Coops and we have provided updates in previous reports. Members who live near the Loughborough Estate may be aware that the first phase of construction at 'LJ Works' (next to Loughborough City Farm) are complete. Repowering are working with Lambeth Council and the interim site operator to secure agreement for installation of 25kW of solar PV on the roof of the main building. Heads of Terms for the lease and PPA are agreed, but still need signing by the counterparties. Following changes to the structure of the LJ Works project, Repowering are now working on new lease and PPA agreements with Meanwhile Space, rather than Lambeth Council. The solar PV installation is expected to take place in October 2021.

Repowering are continuing to work on the development of a Micro Anaerobic Digestion (AD) system at LJ Works, which will enable local food waste collection and provide an additional source of low carbon heat as well as sustainable fertiliser which can support the growing activities on the farm. This is a trial project to test the feasibility of this technology in urban areas. Following the community consultation last year, a new location is under consideration for the AD, which is still on the LJ Works site but further away from the housing on Styles Gardens. Once the technical feasibility of the new site is confirmed, there will be further community consultation before the submission of the planning application.

### **Repowering energy coops impact**

The Brixton Energy Solar Coops are proud to be part of the Repowering family of energy co-ops. In 2020 the Repowering coops have collectively:

- Installed 62 kWp on Elmgreen School in March 2020 as part of Lambeth Community Solar
- Installed our largest solar PV array (138kWp) on the Westway Sports Centre as part of North Kensington Community Energy
- Saved 144 tones of CO<sub>2</sub> from being emitted in the atmosphere

- Raised a further £102K through community shares for North Kensington Community Energy taking our fundraising total to £706,000
- Provided employment to 2 locally rooted community champions in Lambeth
- Supported an empowered network of 45 volunteers and 677 investor members
- Engaged 100 children, 176 young people through workshops and assemblies
- Supported 32 residents through direct one to one energy advice saving £4,242 on their electricity bills
- Continue to lead the way in the design and development of local electricity supply trials

This work is only possible with your support. Thank you for investing in our vision of community energy, and for being part of the change.

## 6. Any questions?

If you have any questions about this report and the accompanying accounts, please email [info@brixtonenergy.co.uk](mailto:info@brixtonenergy.co.uk).

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