



Annual Report 2017

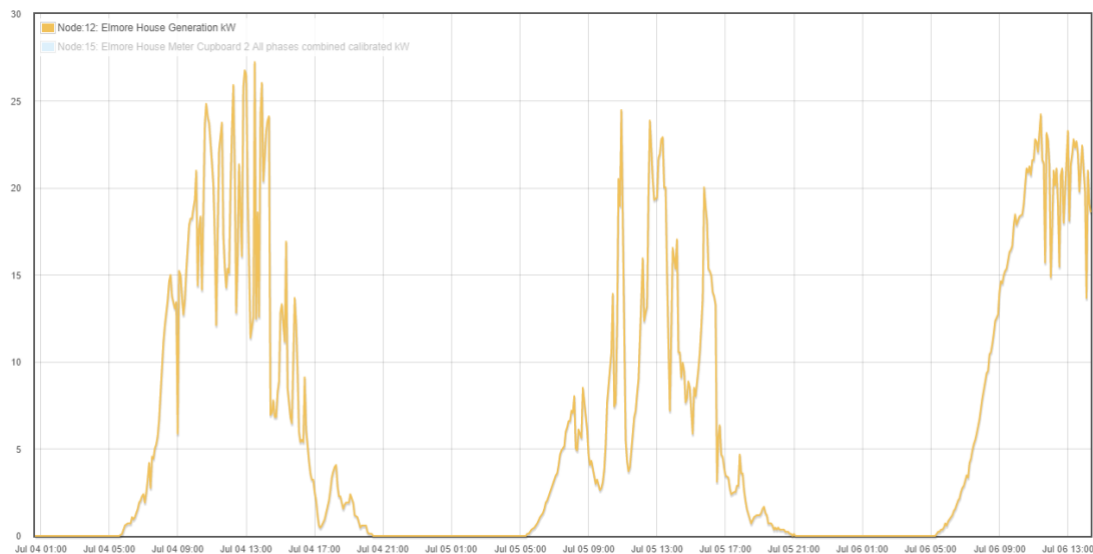
In 2017 Brixton Energy Solar 1 successfully delivered its objectives of generating local renewable energy, engaging with the local community and inspiring others.

Generating renewable energy

For the period, January to December 2017, the Brixton Energy Solar 1 array on Elmore House generated a total of 24,273 kWh of electricity, enough to power 7.8 average UK homes for 1 year. This represents a system efficiency of 652 kWh per installed kW peak per year compared to 769 in 2016.

Since commissioning BES1 renewable energy output avoided 95.5 tonnes of CO₂ emissions.

BES1 now has a remote monitoring system so we can see the output of the inverters and total output from Elmore House, snap shot included below.



Engaging with the local community

It has been a busy year delivering a range of activities to benefit residents of the Loughborough Estate. We continue to work closely with our partners Repowering who provide management support and help secure additional funding to enhance the community fund. Our activities focus on our priorities of providing training and education opportunities for young people and address fuel poverty in Brixton and the Loughborough Estate as outlined below

Brixton Energy Training Programme

Repowering London delivered a training programme for 20 young people living in Brixton. The programme was funded by Power to Change and took place during the spring of 2017. The young people gain an insight and experience into the world of low carbon and green economy through solar panel making, visits to renewable technology sites, discussions with industry figures, community engagement and surveying, social media and brand building, co-operative business models and marketing.

The Repowering training programme is also AQA accredited giving the trainees an opportunity to have their achievements formally recognised with a certificate issued by AQA. More than half of the interns earned 4 or more certificates.

Feedback from the young people was very positive. Survey results showed a significant increase in confidence in all areas, especially 'knowledge of renewable energy' and 'finding work in the environmental sector'. When asked about their future ambitions this is what the young people had to say –

'deterred from working with fossil fuels', Ciaran Coyne, 17

'There's more to life than my estate, I can be anything I want to be', Melek Gentles, 19

'Yes, I want to work in renewable energy', Jake Howlett, 17

Following the success of the first training programme Repowering has secured additional funding from Bank of America to deliver a second training programme in 2018. Do visit our blog page <https://brixtonenergy.co.uk/blog/> to read about past and current trainees' experiences.

Summer community Event on the Loughborough Estate

We worked with the Loughborough Estate Management Board (LEMB) to organise a fun event for estate residents on Saturday 19th of August 2017. The main purpose of the event was to engage with Loughborough residents to hear their thoughts and ideas for the Brixton Energy Community Fund and encourage them to learn about renewable energy and energy efficiency.

The event had a good mix of age groups and all were encouraged to share their ideas on a display board. They were then invited to vote on the idea / project that they wanted to see happen. A total of 70 votes were received on the day. Activities for the young and elderly were top priorities for residents. Training and creative ideas for young people received the highest number of votes. There was also good support for an outdoor gym a project idea that LEMB are keen to see happen but do not have sufficient funds for. While this is a small sample size of the number of residents living on the estate it aligns closely with the informal discussions and feedback we have received at other engagement events.

Energy surveys

We continue to listen to the needs, challenges and concerns of residents through regular door knocking and events on the Loughborough estate. This is to inform and shape our activities so it is tailored for the benefit of the community. We completed 36 surveys that highlighted a third of residents surveyed suggested that being able to afford gas and electricity is a concern for them.

Home Energy Audits

We offered free home energy audits to help residents living on the estate to lower their energy bills and improve the warmth and comfort of their homes during the winter. A total

of 11 residents living on the Loughborough Estate benefited from in-depth energy audits of their homes and advice on switching energy providers.

Energy efficiency drop-in sessions

A series of energy advice drop-in sessions were delivered at Olive Morris House that helped us identify and support a Brixton resident whose family was moved to temporary accommodation in Croydon. After a couple of months of living at the property he received a very high gas bill as the property was part of a communal heating system. He was extremely upset and stressed as he did not have the means to pay the bill. We supported him through the process of applying for E.On Energy Fund and made a contribution of £310 towards his energy debt.

Drop-in sessions were also organised at the local café on the estate and the Brixton Pound café. Loughborough residents were encouraged to attend the drop-in sessions as we distributed food vouchers for the café. A further 2 energy efficiency drop-in sessions were delivered at the Loughborough Estate Community Centre. We found that the stand-alone drop-ins were not successful.

Energy Efficiency Workshops with Brixton Energy Trainees

In November, we held two energy efficiency workshops with some of our trainees. These focussed on providing the young people with a broad understanding of fuel poverty as a concept and the ways in which it can be tackled. We covered topics such as the things to consider when switching energy supplier, grants/benefits available for reducing energy costs, and improving the energy efficiency of existing housing stock.

Inspiring Others

Brixton Energy Solar 1 and our sister co-operatives Solar 2 and Solar 3 are grateful to Power to Change who have funded the development of new business models for community energy in Brixton over the last couple of years. The development of the projects is being led by Repowering London with our support and we will be taking the following innovative projects to the next stage of development

- **Small scale Anaerobic Digestion at Loughborough Junction Works** that will be the UK's first community-owned Anaerobic Digestion (AD) project in an urban area. The system will convert local food waste to energy and organic fertilizer. We will establish a 40m³ digester, with a 9kW CHP engine which would produce in region of 100MWh heat and 60MWh electricity per year, which is equivalent to the annual demand of 20 typical households.
- **Local electricity supply model 'CommUNITY'** is being delivered in partnership with EDF, Electron and UCL. This project has been successfully approved for Ofgem's regulatory sandbox (<https://www.ofgem.gov.uk/about-us/how-we-engage/innovation-link>). There are only two other projects that have been approved by Ofgem in the UK. CommUNITY includes trialling a peer to peer local energy trading platform that will allow residents of Elmore House to use the solar electricity generated from the roof and trade that energy with their neighbours, increasing self-consumption of low carbon energy and reducing overall energy costs.
- **Brixton Energy Local** is also a local electricity supply model that has been developed by Energy Local. This model is being delivered in partnership with Repowering, Roupell Park Resident Management Organisation (RMO), and the charity 10:10 and Energy Local to develop a way to enable residents living at the site of BES3, to benefit from the cheaper energy generated by the solar panels installed on the buildings. The model will see the formation of an 'Energy Club' made up of up to 30 residents living on the

Roupell Park estate. By then shifting more of their electricity usage to the times of day when the solar panels are generating energy, they will be able to reduce their electricity bills. At the same time, this will ensure that the BES3 community fund will receive more income for energy generated.

- **Lambeth Community Solar (rooftop solar)** – despite the significant cuts in the Feed-in-tariff Repowering continues to develop rooftop solar projects in Brixton. Potential sites include Loughborough Junction Works and Brixton Windmill. We are also exploring the expansion of solar on Roupell Park Estate.

Financial accounts and shareholder payments

The financial accounts which accompany this report show that:

- The Society received an income of £5,150 from the electricity generated by the array from the feed-in tariff and deemed export tariff.
- The total income for the year was lower than 2016 (£5,823). This is because there was a fault in the inverter that needed replacing. Fortunately, the inverter was within its warranty and it was replaced at no additional cost. However, we paid £518 for the labour costs to identify and replace the equipment. As is the case with such technical issues it takes time to identify and arrange the replacement. As a result, we lost output and income for a short period of time.

After meeting direct operating and administrative costs, a surplus of £2,260 was generated for the year. The Directors propose that £96 of this surplus is retained as profit for the year so that the co-operative can start to build up a small cushion of reserves for the future.

It is proposed that the remaining £2,164 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 (£1,731)

The CEEF will get a contribution of £433 from the Co-operative and a further £513 from the 30% of shareholders who have waived their interest payments in favour of CEEF. During the year £310 was spent to support a Brixton resident as explained under the section on Energy Efficiency drop-in sessions. At the end of the year, including these amounts, the CEEF stands at £9,716.

Any questions?

If you have any questions about this report and the accompanying accounts, please email info@brixtonenergy.co.uk.

Agamemnon Otero
Andre Pinho
Jesse Scharf
Will Walker

Directors, Brixton Energy Solar 1