



Creating local energy



## Case study of renewable energy co-operatives: Brixton Energy Solar 1, Solar 2 & Solar 3

### Introduction

Repowering works in partnership with Local Authorities and communities to develop local solutions to local energy related problems. Repowering's community-led approach facilitates social benefits for the community in addition to the financial and environmental benefits as described in detail for each of the projects below.

Local energy projects are created that have their own local identity and are set up as renewable energy co-operatives. Each co-operative provides a local ethical investment opportunity for the local community, generating an income from the feed-in tariff and sale of electricity to the grid, which is used to repay shareholders an annual return of up to 3- 5% on their investment. Furthermore the projects ring fence 20% of annual revenue to a Community Energy Efficiency Fund (CEEF) administered by members of the co-operative. This money is used to for energy efficiency initiatives such as home energy audits and draught proofing to address fuel poverty and encourage behaviour change.

### Brixton Energy Solar 1

In March 2012 Brixton Energy Solar 1 Co-operative raised £58,000 with the support of 101 local investors and installed a 37.24kW solar photovoltaic array on Elmore House on the Loughborough Estate.

#### Social benefits

##### Empowered communities

- 3 local residents have taken on leadership roles in the community as Directors of Solar 1.
- 8 of the local volunteers who supported the development of Solar 1 have taken on formal roles and responsibilities in the umbrella organisation 'Repowering'.
- 1 of the volunteers has gained confidence to become Chair of their local tenant resident association.

##### Training and work experience opportunities provided

- The two week experience of working on the solar installation helped Loughborough Estate resident Kevin Wilson who was an unemployed electrical engineer secured a full time job in the construction industry.



*'With me living on the estate, it couldn't have been a better job for me! Walking 100 meters to work!' – Kevin Wilson*

##### Addressing fuel poverty and increased awareness of energy efficiency

- 22 energy surveys completed by residents of Elmore House
- 2 home energy audits delivered
- 6 energy advice sessions delivered



### Financial benefits

- £11,000 ring-fenced funds for the CEEF
- £9000 match funding secured through the Community Energy Savings Programme to augment the CEEF
- An estimated savings of £1200 on energy bills to the Tenant Management Organisation over the period of 25 years.
- An average annual 3% return on investment for shareholders
- 30% tax relief on investment through Enterprise Investment Scheme (EIS)

### Environmental benefits

- The solar array will generate an estimated 27000 kWh of solar energy per annum reducing 14tCO<sub>2</sub> through the 25 year life of the project.





## Brixton Energy Solar 2

Following the success of Solar 1, Brixton Energy Solar 2 Co-operative successfully installed 45kW solar photovoltaic array on 5 blocks of Styles Gardens on the Loughborough Estate in Oct 2012. The Co-operative raised £61,500 with 78 local investors.

### Social benefits:

Empowered communities

- 3 local residents became Directors of Solar 2

Training and work experience opportunities provided

- 5 Brixton youth and residents gained from paid work experience on the solar installation. Habiba Usman, a young student studying to become an electrical engineer was the only female member on the team to install solar panels on Styles Gardens.

*"I was motivated to get involved in the project because it is funded by local residents rather than a company I had never heard of. Having completed the work experience, I now really want to tell others about solar energy. I think we need to be less reliant on expensive energy providers, who have increased their prices for electricity and gas recently."*

- Inca Williams, a trained solar installer working in construction. He has now set up his own solar installation company.

*"I love the fact that I have been able to contribute to a project that will benefit local people for the next 20 years or so."*

- Andrew Enebe, is developing his own social enterprise to install solar panels.

*"I was surprised to learn that the solar project was funded by local residents rather than the Council. It goes to show how far people are willing to go when it comes to working together to bring about positive change within their communities."*

- Emmanuel Okwera, is a full time student involved in influencing energy policy through the youth parliament.

Addressing fuel poverty and increased awareness of energy efficiency



- 45 energy surveys completed by residents of Styles Gardens
- 5 home energy audits delivered
- 5 Energy Performance Certificates produced
- 2 energy advice sessions delivered at the local community centre
- 1 solar panel making workshop delivered

*"I am so thankful for the Energy audit. I just hope other people on other estate will have this too." - Shamsa Osman Gure, Loughborough estate.*



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## Financial benefits

- £4,000 ring-fenced funds for the CEEF
- £9000 match funding secured through the Community Energy Savings Programme to augment the CEEF
- An estimated savings of £1000 on energy bills to the Tenant Management Organisation over the period of 20 years.
- An average annual 3% return on investment for shareholders
- 50% tax relief on investment through the Seed Enterprise Investment Scheme (SEIS)

*"This just makes sense. I learned about solar panels and wind turbines twenty years ago so I've always had awareness for clean energy and the benefits it can bring. So it's fantastic to see it happening on my doorstep, and to be able to be a part of it." - Fay Gordon, Loughborough Estate resident and investor*

## Environmental benefits

- The solar array will generate an estimated 30000 kWh of solar energy per annum reducing 16tCO<sub>2</sub> through the 20 year life of the project.





## Brixton Energy Solar 3

Brixton Energy Solar 3 is Repowering's third project launched on 6<sup>th</sup> June with Ministerial visit by the Secretary of State for Energy and Climate Change, Ed Davey and Greg Barker and DECC's call for evidence for Community Energy. The Co-operative raised 67,400 to install a 50kW solar array on four blocks on the Roupell Park Estate. The installation was commissioned in September 2013.

### Social benefits

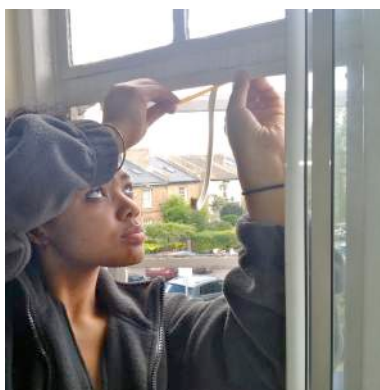
#### Empowered communities

- 4 local residents have taken on leadership roles in the community as Directors of Solar 3
- Local residents have also been involved as active team members supporting the development of the project

*"This project means a lot to us and our residents as it brings with it valuable work experience for some of our youths as well as an investment opportunity for residents and local investors alike."*  
 - Mary Simpson, has lived in Brixton Hill for 26 years and has brought together the community through her participation in various local initiatives.

#### Training and work experience opportunities provided

- 8 young people from the estate have completed a 15 week internship programme learning about solar energy, legal and governance structures, community engagement, energy efficiency, local currency, marketing and IT.
- A total of 8 young people from the estate and local area are now working on the solar installation as part of their paid work experience.
- Four energy efficiency training sessions including draught proofing workshops were delivered



*"I lived on the estate for 5 years and am studying level 3 electrical installation at Lambeth College. I am interested in all sort of things, from astronomy to energy. I would like to be a chartered technician. Working with Repowering through this internship has been truly empowering experience."* - Kemal Callender (18), Intern.

*"I have grown up on the Roupell Park Estate and am a semi-professional footballer. While I would like to be a professional footballer and stock trader, I have enjoyed this internship, particularly when learning about different business structures, from co-operative to corporate models. I really enjoy learning about solar panels and how they work but, without doubt, the best experience of this project will be to actually go on the roof and install them."* - Blazej Makowski (16), Intern.



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Addressing fuel poverty and increased awareness of energy efficiency

- 100 energy surveys completed by residents of Roupell Park Estate
- 8 home energy audits delivered
- 4 Energy Performance Certificates produced
- 6 energy advice sessions delivered
- 1 solar panel making workshop delivered
- 2 draught proofing workshops held



### Financial benefits

- £12,000 ring-fenced funds for the CEEF
- An estimated savings of £4000 on energy bills to the Tenant Management Organisation over the period of 20 years
- An average annual 4% return on investment for shareholders
- 50% tax relief on investment through the Seed Enterprise Investment Scheme (SEIS)

### Environmental benefits

- The solar array will generate an estimated 45000 kWh of solar energy per annum reducing 20tCO<sub>2</sub> through the 20 year life of the project.

*"I have lived on Roupell Park Estate my whole life. I aspire to be a teacher to disabled children. The Repowering work experience is helping me broaden my horizons and learn more about more than just solar panels. I am enjoying my work experience as I learn something new everyday."*- Nadeane David (17), Intern.

*, "I have lived on Roupell Park Estate for most of my life. For the last ten weeks, I have enrolled in Repowering's internship programme, which is helping our community save money and electricity. I very much enjoy helping out and working with the Repowering team. I have learned so many new skills while bringing people together within the community. I would like to be an events organiser and I am sure I will use the new skills I have gained to fulfil my dreams."*- Isha Denny-Gardener (15), Intern

