



Creating Local Energy



Vauxhall Energy Study Case

Vauxhall Energy is the first community-owned energy enterprise in Vauxhall, but is also part of a growing movement of community energy projects throughout the country.

Vauxhall Energy has been registered with the Financial Conduct Authority as a Community Benefit Society. The Vauxhall Gardens Estate was chosen as a site for solar panels mainly because there was interest from the Vauxhall Gardens Estate Residents and Tenants Association (VGERTA) to replicate the Brixton and Banister House's Energy model lead by Repowering London.

Repowering London developed the Vauxhall Energy project over 3 years, with support of Lambeth Council and alongside residents of Vauxhall Gardens and local advocacy groups. Based upon Repowering London's award-winning model for the Brixton Energy series of community energy solar coops, Vauxhall Energy also brings social, financial and environmental benefits to the Lambeth community.





65.34 kWp installed capacity solar photovoltaic panels on the roof of **5 housing blocks**, Vauxhall Gardens Estate, Lambeth.

The clean energy generated powers the common areas of the buildings and the remainder is sold to the Grid.

This project will generate a **reduction of the borough's carbon footprint**: the project carbon savings are 488 tCO₂ with an average annual savings over 20 years of 24 tCO₂.

The project will also set an **example for future community energy projects** to be delivered across Lambeth as part of Repowering and Lambeth's cooperation agreement.



"The reason that I join the group is that's something new, it's for the community. I'm really tired of complaining about things not getting done and doing nothing about it."

Joy, Vauxhall Energy Community member

Environmental outcomes	
Proposed	Delivered
Renewable energy infrastructure created within the community <ul style="list-style-type: none">50 - 100 kWp solar photovoltaic arrays installed (multiple buildings on one estate)	<ul style="list-style-type: none">Planning approval secured for 423kWp solar PV arrays on 17 buildings on the estatePhase 1 currently being developed to install 292kWp on 12 blocksPhase 1: 292 kWp is set to generate 240,000kWh per annumPhase 1: 292 kWp system saves 105 tCO₂ per annum and 2100 tCO₂ over 20 years
Renewable energy generated <ul style="list-style-type: none">Original system - 50 kWp system: 42,500 kWh per annum	
Reduction in the borough's carbon footprint <ul style="list-style-type: none">Original system - 50 kWp system: 22 tCO₂ saved per annum and 450 tCO₂ saved over 20 years	

Vauxhall Energy raised **£50,340** via a community share offer to fully fund the installation of the solar array on the Vauxhall Gardens Estate, Lambeth.

A **technical feasibility survey** has been performed and Energy monitors installed in order to determine the optimal system size that makes efficient use of output and maximises the income of the community.

The project income is mainly from the **government's Feed-in Tariff scheme** and the **sale of the energy** produced (via a Power Purchase Agreement with the Council).

3% average annual return on investment over 20 years for the Society Members, after operating costs deducted.

Lambeth Council benefits savings on energy bills thanks to the solar panels as well as facilitating residents to benefit from the social, environmental and financial benefits of the project.



Financial outcomes	
Proposed	Delivered
<p>Renewable energy infrastructure capital costs funded through community share offer</p> <ul style="list-style-type: none"> £62,500 community share offer raised for a 50kWp system <p>Reduced energy costs for communal spaces</p> <ul style="list-style-type: none"> Energy generated can be resold for communal usage at discounted price of up to 20% Potential savings on a 50kWp system is an estimated £8000 over the lifetime of the project based on 50% usage on site <p>Ring fenced funds created for allocation within the community</p> <ul style="list-style-type: none"> £6,000 - 20,000 contributed over the life of each project, to be allocated by the community 	<ul style="list-style-type: none"> Expected to raise £350,000 through a community share offer to install 292kWp of solar generating capacity. Due to massive reductions in the FIT the project cannot offer a reduction of 20%. The financial model allows for a 5% discount based on a tariff of 8.9p per kWh. Dependent on Lambeth Council's current energy tariff. Providing Lambeth Council with potential savings of £17,500 to £22,500 based on a 292 kWp system assuming 67% usage of solar electricity onsite. Phase 1 is expected to generate £40,000 to £45,000 for the community over the life of the project. This is despite the reduction in the FIT.

<p>Highly competitive return on investment</p> <ul style="list-style-type: none"> Each project delivers a return of 3-5% per annum back to shareholders <p>Tax relief for investors</p> <ul style="list-style-type: none"> 50% tax relief on investment provided through Government backed SEIS initiative <p>Creating opportunities for socially responsible investment</p> <ul style="list-style-type: none"> Standard investment ranges from minimum £250 to maximum £20,000 Dispensation granted for residents of the estate to invest a minimum of £50 	<ul style="list-style-type: none"> The Vauxhall Energy project is estimated to provide an average of 3-4% return on investment Government has now removed the eligibility of community energy projects from SEIS. However, under the Government's latest Personal Tax Allowance scheme introduced from April 2016 investors will no longer pay tax on savings interest. The same investment opportunities will be provided as mentioned above
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The financial model ensures that the Society will be an independent financially sustainable organisation and will not be dependent on the Council for further funds and resources.

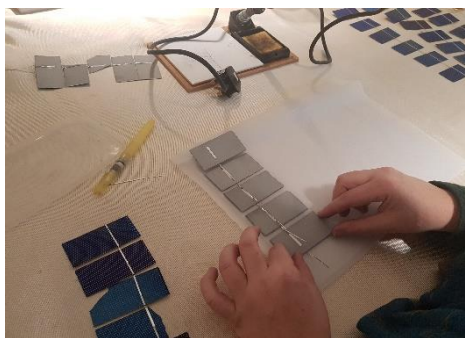
As a Community Benefit Society Vauxhall Energy will limit its returns to investor members at an average 3% with any excess profits going towards the Community Fund and ensuring the smooth running of the system. The project will create an estimated £40,000 to £45,000 community fund over the lifetime of the project.



Repowering's model of community energy is unique as it includes an intensive social works programme that provides mentoring, training and work experience for local residents through the development of the renewable energy scheme. Thereby providing social, environmental and financial benefits for the communities we work with.

Resident involvement

- Opportunity for a **socially responsible investment** with a standard investment ranges from minimum £250 to maximum £20,000
- Local residents unable to invest can decide **to be part of the Community with a nominal £1** membership fee
- Following co-operative principles, **all members have one vote** irrespective of the size of shareholding
- Vauxhall Energy is run by people who live and work in Vauxhall Gardens Estate: **four directors** including two residents and two employees from a local business.
- Community **workshop events** have been organized to involve members and provide them a practical understanding of the technical details of the project:
 - o lesson in how roof assessments are conducted
 - o lesson in how a feasibility study is carried out
 - o lesson in how the financial model operates
 - o involvement in the installation of energy monitors on communal supplies



"I know how important it is to stop using fossil fuels and start using renewable sources. I've got a daughter and I just feel like into my point to kind of try and make a difference somehow and show her the example that we can always do something to try to make the environment better."

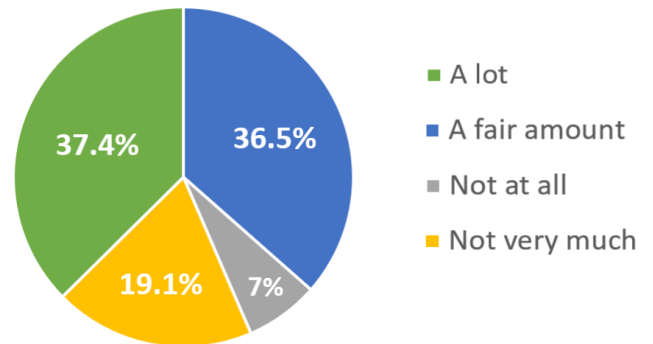
Carla, Resident of the Vauxhall Gardens & Director of Vauxhall Energy

Rising interest for each local resident

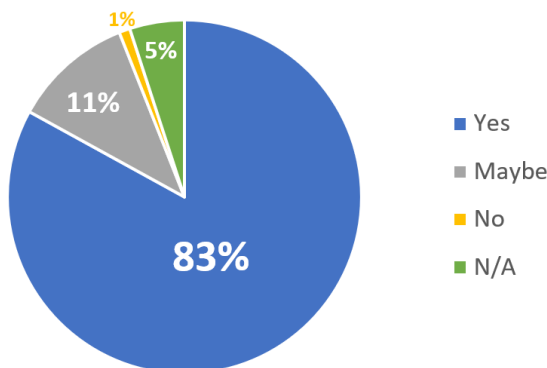
Repowering has organised regular **door knocking** sessions, engaging residents in discussions about the community energy project, inviting them to community energy events, and completing energy surveys. Over 60% of the estate blocks have been canvassed – an estimated 650 households – from which **154 surveys have been completed**. The surveys have highlighted the following:

Over 60 residents
have expressed
desire to have an
energy audit of
their home

How much thought, if any, would you say you give to saving energy in your home?



Would you support the installation of community-owned solar panels at Vauxhall Gardens Estate?



"We have been knocking on doors and we've received an incredibly positive response for this project, people want to see solar panels on the roofs and want a stake in improving the area."

Liz Cox, Vauxhall Energy Director

Opportunities for young people

- 9 local young people have benefitted from a 20-week paid internship programme with a summer project taking place through July and August 2015
- A three-minute video has been created about Vauxhall Energy, featuring local residents and interns
- Interns were given a logo design competition to come up with ideas for a new Vauxhall Energy logo
- Local tradespeople and youth were offered paid work experience installing the solar panels on the roof with professional installers

At the end of their training, we asked the Vauxhall trainees to give feedback on their experiences.

- The trainees were most excited to learn new practical skills, to develop their interest in solar energy, and to receive payment for their participation.
- At the end, they had gained financial and legal knowledge, learned about energy efficiency, and followed hands-on solar panel-making workshops.
- They most enjoyed the practical workshops, and helping to design the logo for Vauxhall Energy.



Thanks to the trainees: Carla, Carlos, Jazmin, Mustafa, Hance, Sophie, and Joe.

Tackling fuel Poverty

- Remainder generated profits are channelled into a **Community Fund** for the benefit of tenants and residents living in Vauxhall Gardens Estate: almost 50% of net revenue from the project will be set aside annually for the Vauxhall Energy Community Fund - or similar social and charitable purposes
- Tackling fuel poverty through **energy efficiency**:
 - o 154 surveys completed
 - o 1 “live” home energy audit training session completed
 - o 61 households identified as interested in receiving a home energy audit
 - o 1 draught proofing and 1 energy saving workshops held in 2015
- Profits made from the project benefit the residents of Vauxhall Gardens Estate by reducing energy bills, improving the quality of life and well-being of local residents.
 - o Up to £80,000 savings to Lambeth Council on their Communal supply energy bill
 - o Energy generated resold for communal usage at discounted price of up to 20%



Social outcomes

Proposed	Delivered
Empowering communities and promoting local leadership: <ul style="list-style-type: none"> Renewable Energy Co-operative created, owned and managed by the local community A minimum of 3 Directors appointed from within the local community Multiple promotion and consultation events organised to engage with local residents 	<ul style="list-style-type: none"> Vauxhall Energy Limited established on 23 June 2015 as a Community Benefit Society 4 directors appointed to Vauxhall Energy – two estate residents and two local employees 3 community events held, 4 workshops delivered, 2 outreach sessions, 42 public meetings and over 28 door knocking sessions held. Planning consultation events held on 1st and 5th March 2015. Please find report attached from the consultation in Appendix A
Support and training for vulnerable youth, local residents and long term unemployed and job seekers <ul style="list-style-type: none"> 10 paid work experience placements on site 6 paid internships to gain practical skills and experience 4 “Train the trainer” energy efficiency workshops 	<ul style="list-style-type: none"> 9 paid internships commenced 20-week internship programme in November 2014. 18 sessions delivered to date with 7 interns still attending at last session in July 2015 1 “Train the trainer” energy efficiency workshop delivered in November 2014 1 Solar Potential Workshop 3 Solar Panel Making Workshops
Tackling fuel poverty through energy efficiency <ul style="list-style-type: none"> 100 Energy surveys completed 10 Home energy audits completed 10 Energy efficiency advisory events and workshops 4 Energy switching workshops 	<ul style="list-style-type: none"> 174 energy surveys completed so far, 83% support the project. Please find attached survey responses in Appendix B 1 ‘live’ home energy audit training session completed 61 households identified as interested in home energy audit 4 home energy audits completed to date 1 draught proofing workshop held in January 2015 2 energy efficiency advise sessions delivered this also included energy switching advise.
Raised awareness leading to behavioural change <ul style="list-style-type: none"> 500 residents engaged through direct outreach (Door-to-door and engagement events including solar panel making workshops) 5000 residents engaged through indirect outreach (Flyers, leaflets, posters and local press coverage) Reduced energy consumption, following local engagement and energy audits / advisory workshops 	<ul style="list-style-type: none"> The team has directly knocked on 650 flats on the estate 115 residents signed up to Vauxhall Energy mailing list Up to 200 businesses and 2,000 Vauxhall residents reached through report on Vauxhall Energy in Vauxhall One online (9 June 2015) 200 local people taking flyers at three community events 1500 flyers were distributed to all households on the estate as part of the planning consultation process.

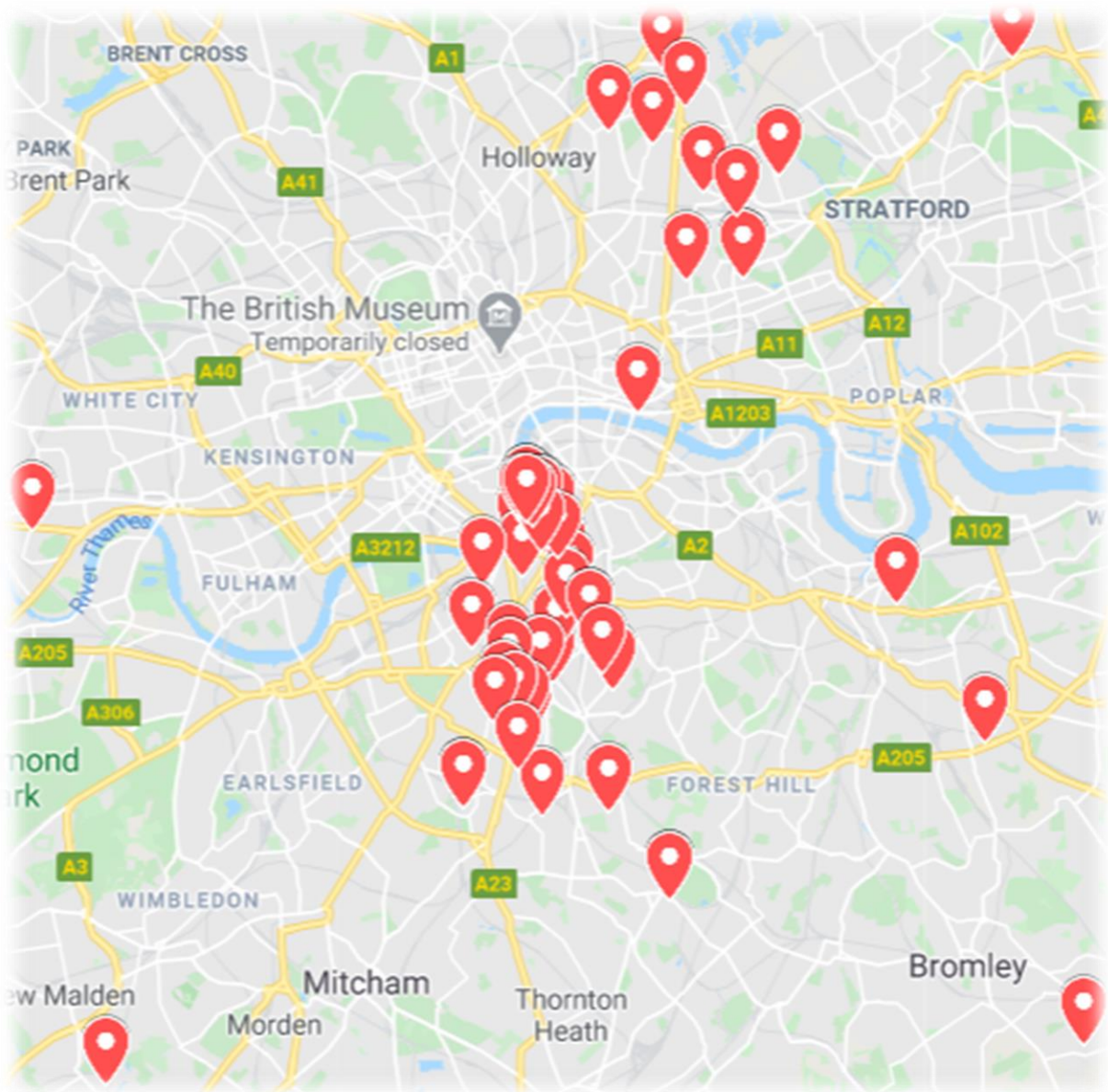
WHO ARE THE INVESTORS?

73 people have invested in the Vauxhall Energy project:

13 of them come from **Vauxhall**

21 of them had **already invested in previous Community Energy projects** conducted by Repowering

1 out of 2 of them come from the **Borough of Lambeth**



Map of Vauxhall investors' origin

To ensure local ownership of the project Repowering developed a community-based social marketing campaign to promote the share offer. This included the distribution of publicity materials to local business and markets, local networks, publications in *Vauxhall One* and social media. Repowering, continuing to work collaboratively with local TRAs, community organisations and businesses (VGERTA, VGCC, Vauxhall Five, Alford House Youth Centre, NEF and Vauxhall One) also organised several community events to help promote the project and increase local support and investment:

- Community energy mentoring meetings have been held locally twice a month in The Carmelita Centre: from October 2015 to July 2015, 18 consecutive public meetings have been held as part of Vauxhall Energy project
- Between October 2014 and March 2015 drop in sessions were held at The Carmelita Centre for residents as a way for them to start engaging and then hopefully leading to regular attendance at meetings
- Vauxhall Energy had a stall at the St Georges Fair in Vauxhall Pleasure Gardens in April 2015, the VGERTA AGM in May 2015 and also at the Summer Fair/Proms event in July 2015



Vauxhall Energy stall at St George's Fair