



## CASE STUDY | ACCESSIBLE & AFFORDABLE ENERGY

# ENERGY CLUB MODEL OFFERS GLIMPSE OF A FAIRER FUTURE

To anyone walking past Roupell Park Estate in South London, it might not be obvious that it is at the forefront of low-carbon innovation. Sitting just a short distance from the busy South Circular Road in Brixton, the estate is made up of a cluster of low- to medium-rise flats built in the 1950s and owned by Lambeth Council. In 2013, a local community group called Brixton Energy Solar set up a co-operative to install solar panels on a number of the blocks, with the support of Repowering London.

The panels have been operating successfully since then, supplying electricity to the communal areas of the buildings, such as the lifts and lighting, and exporting any surplus to the public distribution network. The profits from the scheme are used to repay members of the co-op and create a community fund. The fund has supported a range of local initiatives such as out-of-school activities and free energy-saving advice sessions for residents.

### Project in brief



Proved the viability of the Energy Local, 'energy club', model using solar generation



Provided members with solar electricity priced at 6p/kWh at a time when grid electricity was priced at 35p/kWh



Showed the potential to lower grid electricity demand by 27% per year for member households



More than 500 residents were contacted, and 18 installations completed



Successfully engaged households that had low levels of engagement and trust in the energy system

## Piloting a smart partnership

Six years later, a partnership between Bioregional, Energy Local CIC, Repowering London, Connected Response and Octopus Energy took up the challenge of using new smart technologies to enhance the existing scheme by allowing residents of the estate to benefit directly from the output of the solar panels.

The aim of this next phase was to bring the systems installed on the flats into line with most solar photovoltaic installations on street-level properties, where households receive a reduction in their electricity bill whenever their



consumption coincides with solar generation. If successful, this model would help unlock new solar installations in urban communities across the UK and at the same time reduce fuel poverty by pricing the 'local' electricity at a discount in relation to standard electricity tariffs.

Over time, the model could further support the transition to a low-carbon energy system by encouraging households to move some of their electricity usage to times when local renewable electricity is available. For example, this could mean running a washing machine around midday when solar energy is usually at its peak.

During the trial, an average of 40% of participants' total electricity usage was matched with the local solar generation on a half-hourly basis. Extrapolated over a full year, this could translate to 27% of total participant demand being supplied by solar generation, due to the lower levels of generation during the winter.

## Sign ups and savings

In July 2022, Energy Local Roupell Park (ELRP) began its ongoing operations, with 16 founding members signed up. To reach this point, more than 500 residents were contacted and 18 installations completed.

Households that are part of ELRP decide together how to price the electricity and are in charge of their energy choices. For example, the group's solar electricity has been priced at as little as 6p/kWh, compared to a 35p/kWh cost for grid electricity during the same period.



**Energy Local Roupell Park is structured so that the participants decide through a democratic vote alongside the generator what tariffs to set for the electricity they use from the solar panels. Its purpose is to benefit its members instead of someone else. The vision is that if you live in an estate like Roupell Park you are able to afford your energy needs while supporting the transition to a low-carbon economy."**

**– Felix Wight, former Technology Director, Repowering London**

