

# ZERO CARBON RUGELEY

WP18-D02:

## *Community Energy in Zero Carbon Rugeley SLES – Final report*

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**Chase Community Solar**  
**Final Report – March 2023**  
**Community Energy in ZCR SLES**

**1. INTRODUCTION**

This report sets out the findings from the 3 year engagement of Chase Community Solar Limited (CCS) with Zero Carbon Rugeley. CCS is a Community Benefit Society (CBS) supplying and promoting community energy in the Cannock Chase District of Staffordshire.

**2. BACKGROUND**

Community energy (CE) refers to the delivery of community-led renewable energy, energy demand reduction and energy supply projects, whether wholly owned and/or controlled by communities or through a partnership with commercial or public sector partners. It is about communities having democratic control over their energy future, by understanding, generating, using, owning and also saving energy in their communities, as well as working together across regions and nationally.

CCS owns 312 solar PV panels on bungalows owned by Cannock Chase Council and supplies free solar electricity to the tenants, significantly reducing their energy bills. The Society was established in 2015 by the Board of Southern Staffordshire Community Energy (SSCE), another CBS which has been active in developing community energy schemes in the neighbouring Lichfield area since 2011, following an approach to SSCE by Cannock Chase Council.

CCS has 188 members across the UK who invested c£750,000 in the project and receive interest on their shareholdings. Carbon dioxide emissions of nearly 3 million kg have been avoided since the first systems began operation in April 2015. Chase Community Solar (CCS) was invited to join the ZCR Consortium in 2019.

CCS also has a community fund which it uses to provide additional community benefit including the installation of 35 solar immersion devices in tenants homes to provide hot water and additional energy savings from the PV systems. In addition the Society was awarded funding in 2021 to install batteries in 75 of the bungalows and these were fitted in the summer of 2022 providing further savings.

### 3. CCS INVOLVEMENT WITH THE ZCR PROJECT

Maximising the potential for community energy in an area likely Rugeley is quite a complex process requiring activity at several levels. The original design of the ZCR programme did not set out to create opportunities for community ownership and financing of assets or services. The original Project Manager appointed by CCS did not have the brief or skills for this and it was only some way into the programme (June 2022) that a suitable individual was recruited to address these aspects.

The original design of the ZCR programme did not set out to create opportunities for community ownership and financing of assets or services. Community Energy was originally embedded in the IUK plan via a grant allocation of £20,000 to Chase Community Solar (CCS) as part of WP 7 – Usercentric Design led by Keele University. Although Chase Community Solar (CCS) - an established Community Benefit Society owning PV systems on around 60 Council tenants roofs in Rugeley - was a partner in the SLES Consortium its role was conceived in a very limited fashion around engaging the Council tenants who already had the benefit of PV owned by CCS, and this through sub-contractors.

However, at an early stage advice was provided by Regen to the effect that CCS's engagement with the project would be better served by employment of a Project Manager (PM) to undertake the planned work. Accordingly, CCS appointed a contractor PM in September 2020. The PM worked with Keele University, particularly focussing on disseminating information on the SLES project to the education sector and housing bodies and also working on consultation initiatives with Council staff on the Springfield Estate with its high proportion of social housing. Unfortunately the contractor became ill in the autumn of 2021 and had to withdraw from the project.

In parallel a Community Energy working party had been convened to look in depth at the potential for the sector to deliver elements of the SLES and to provide background information. The report emerging from this work (prepared by Regen) was entitled *Suitable Delivery Models* and comprised a summary of the different funding streams and legal/governance structures available, with the aim to understand the best options for Rugeley. This report identified areas where CCS or its partner Community Benefit Society, Southern Staffordshire Community Energy (SSCE) could explore for potential development.

The CCS Project Manager work was taken up by Mike Kinghan, Chair of CCS and Board member of SSCE on a volunteer basis and the Community Energy group continued to meet on a regular basis as a sub-Group of WP7. However it was agreed that, with the new emphasis on development of Community Energy schemes and the potential for CE financing of projects, that under iZCR, Community Energy fitted better with WP18 – Delivery Vehicle alongside the work of Energy Capital and Equans. A new Community Energy Project Management Contractor was appointed by CCS in June 2022.

Over the period January 2022 to March 2023 the Community Energy work undertaken was as follows:

- Initial financial appraisal of community of 1-3 MW PV installation on Ideal Standard factory roofs
- 2 meetings with IS representatives followed by preparation presentation of a proposal to Ideal Standard regarding the above. Regrettably IS did not follow up on this despite several requests for feedback
- Investigation potential of 2 hectare site on Power Station for community renewable installation – felt to be too small for a financially viable project
- Worked with Southern Staffordshire Community Energy to secure appointment of community energy Project Developer – commenced work 14 June 2022

- Preliminary investigation of the possible establishment of an 'able to pay' community retrofit project – identified several possible models and need for further detailed consideration
- CCS completed installation of batteries in 75 Council bungalows across Cannock Chase District including 20 in Rugeley (funded separately by the Energy Redress Fund)
- Installation of 40 solar immersion devices in Council bungalows across Cannock Chase, 10 in Rugeley
- Obtained support from the Keele University SEND project for investigation of the potential of flexibility payments and peer-to-peer training
- Put proposals to Cannock Chase Council regarding the installation of solar PV (by Southern Staffordshire Community Energy) on Rugeley and Cannock Leisure Centres – at the time of writing these are still under consideration
- Appraisal of the opportunities to reduce energy costs and carbon emissions at Rugeley Community Centre including development of proposals i. for cavity wall insulation ii. For installation of solar PV and iii. a new air-source based heating system
- Funding and management of the installation of cavity wall insulation and a 10kW PV system at the Community Centre, with output of the latter available for display on the Centre screen
- CCS will continue to own the PV on the roof of the Community Centre under a roof licence agreement charging the Centre for the electricity supplied from the system at a below commercial rate.
- The surplus income produced from the array (after any CCS administrative costs have been deducted) will be recycled to provide support to community environmental projects in Rugeley

#### **4. RECOMMENDATIONS**

These are our recommendations on the approach to incorporating Community Energy in Smart Local Energy Systems based on our experience over the 2 years of the Zero Carbon Rugeley Project.

##### **Overarching**

- Maximisation of community ownership of assets and/or services should be a core element of all SLES programmes
- All SLES partners need to have a full understanding of CE and be committed to identifying potential opportunities for CE
- Appropriate funding for skilled CE personnel resources needs to be included in SLES programmes
- Not all CE initiatives will necessarily result in surpluses as carbon reduction will be paramount but where there is a surplus it should be reinvested for development of CE or community benefit

##### **Community Engagement**

- Gaining community understanding of and engagement with the concept and delivery of CE is critical
- CE should be a core element of the overall SLES community engagement process, including nurturing of Community Champions with appropriate training and information resources available

##### **CE Project Identification**

- Renewables present the greatest opportunities for CE with solar usually as the leading technology but this may change as planning and subsidy policies change
- Opportunities in relation to heat networks, group purchase schemes and schemes to promote energy efficiency and retrofit, including advice projects should also be explored
- A 'hit list' of potential CE for CE projects (including potential joint ventures) should be identified at an early stage and kept under review
- Funding for feasibility work on specific projects with CE potential should be available
- Key targets for CE projects should include smes, community organisations, schools, public sector organisations and landowners
- Energy audits should be undertaken in conjunction with building owners with the offer of community funded interventions made available where appropriate opportunities are identified

##### **Delivery Mechanisms**

- The skills of existing local and regional CE organisations should be utilised in SLES delivery with additional knowhow brought in where appropriate
- Once the scope of potential CE intervention is established the need for a new CE vehicle should be assessed against use of an existing vehicle in consultation with local residents and organisations

## **5. COMMUNITY ENERGY IN RUGELEY GOING FORWARD**

The ZCR project concluded on 31<sup>st</sup> March 2023. Community Energy work will continue to be promoted in Rugeley and across Staffordshire by SSCE and CCS in partnership with other bodies.

CCS will:

- actively collaborate with other agencies to establish an entity to maintain the momentum of ZCR
- continue to manage the PV and batteries in its ownership and seek opportunities for further development including installation of additional batteries and opportunities for flexibility.
- continue to utilise its Community Fund on further measures to benefit low income households and reduce carbon emissions locally
- maintain contact with Rugeley Community Centre to identify additional opportunities for measures to further reduce their carbon footprint and energy bills

SSCE will

- actively collaborate with other agencies to establish an entity to maintain the momentum of ZCR
- work with the community and Council to identify and take forward new CE opportunities
- focus initially the potential for community owned renewables installations on Rugeley and Cannock Leisure Centres and other public and community buildings
- make contact with schools in Rugeley to explore potential for PV
- work with SHAP and other partners to identify other collective projects
- make contact with the new owners of the Power station site when known to explore potential for CE in the development there
- work with Keele and EcoRugeley to develop the Community Ambassadors programme with regard to community energy

**Mike Kinghan, Chase Community Solar**

**March 2023**