

Chase Community Solar Limited

Annual Review for Year Ended 31 December 2022

Introduction

Welcome to this year's review, which covers the operations during the Society's financial year January to December 2022. We have continued to oversee the operation of the Society's PV systems successfully and effectively on the roofs of 312 Council properties in Cannock Chase District, providing free solar power to the tenants, while expanding our operations significantly to increase the benefits to the tenants and the wider community.

During the year the Society:

- Produced a total of 758,346 kWh of solar electricity
- Achieved a surplus of £58,925 which will enable an interest payment of up to 9.7%
- Installed batteries in 75 of the properties occupied by the Council tenants who have our PV systems
- Installed solar immersion devices in 35 of the properties
- Continued involvement in the Zero Carbon Rugeley project exploring opportunities for further PV installations in and around the town

According to Orsis who manage the portal for tracking our systems we have now generated a total of 6,019,073 kWh of energy and avoided 3,046,950 kg of carbon emissions since establishment.

Board of Directors

As foreshadowed in last year's review we now have a new Secretary in place, Ian Smout, who has got to grips with the work with great aplomb. His predecessor, Andrea Simpson, one of the founder members has, we are delighted to say, remained on the Board and continued to provide the benefit of her experience and wisdom. Equally Dave Crosby has got firmly to grips with the role of Treasurer, which, with a Society of this scale and complexity is no easy task, even with the support of the Sharenergy finance team who look after our accounts. Our involvement with two substantive grant-funded schemes has considerably added to the underlying complexity of the job.

At the AGM in June 2023, Elaine Berry will finally be retiring from the Director position after over four Years in post. Although she stepped down from the Treasurer position last year, she has continued to provide her experience and expertise in support of Dave's Treasurership. We would like to thank her for her invaluable support over her time on the Board.

Also at the AGM, in accordance with the Society's rules, one of the Directors, Mike Kinghan, will need to retire by rotation from the Board but is standing for re-election.

System Performance

It was a relatively good year for insulation, but the overall performance of our estate was affected to an extent by an unusually high level of voids (empty properties) over the summer period, which appears to have resulted from delays in the reletting process occasioned by staffing issues at Cannock Chase Council – unfortunately the whole electrical system for a property has to be shut down when it is void. The actual generation figures for each year since installation appear in the second-left column of the table below, headed "Actual".

The Share offer document included projections of the system's performance produced by the installers and based on a standard methodology. In the table below, the installer's projection and the proportion of the projected output achieved are presented along with an adjustment to the projection that takes account of the predicted fall in output as panels age – although in fact there is little apparent impact from this to date – climatic and other factors so far obscure any trend in this direction.

Generation Actuals and Projections

Year	Actual	Original Projection*	Adjusted Projection	%age of original	%age of adjusted
2022	758346	778068	748501	97.5	101.3
2021	733260	778068	753170	94.2	97.4
2020	781088	778068	758616	100.4	102.9
2019	761985	780697	765863	97.6	99.5
2018	773492	780697	770860	99.1	100.3
2017	736396	783506	778570	94.0	94.6
2016	793930	783506	783506	101.3	101.3

**excluding purchased properties where PV has been removed*

As previously reported, we do not have precise information about the quantity of solar power that tenants use on site, as this is very difficult to determine without the installation of export meters. Data from the official MCS (Microgeneration Certification Scheme) Guidance indicates a range of 20-30% export for the size of PV systems installed by CCS – this is the most reliable source we have been able to discover. The average saving to tenants from our solar PV in 2022 is estimated at between £110 (at 20% self-consumption) and £165 (at 30% self-consumption). CCS sites with batteries as well as solar PV are self-consuming 46% of generated PV giving savings of £253 per year. The total savings to 237 tenant households without batteries and 75 households with batteries amount to in the region of £50,000 per year.

Battery Project



Members will remember that we were able to obtain grant funding from the Energy Redress scheme to install 75 batteries in properties with CCS PV systems. Installation of the batteries began in April 2022 and continued over the summer.

Staffordshire fuel poverty charity, Beat the Cold (BtC), undertook visits to all battery recipients prior to install to inform tenants about their systems and are now in the process of revisiting following the installation to answer any queries, and to ensure tenants understand their systems and can get the best results. The savings generated so far equate to an average of an additional £135 per annum,

National Energy Action, our research partner, have been conducting interviews with each of the organisations involved with the project and 30 tenants to help understand how similar projects in social housing settings can be improved for any future programmes.

We were also able to obtain funding last year from the Keele University SEND programme. This allowed us to commission an investigation into the potential benefits of Community Virtual Power Plants (cVPPs) and Peer-to-Peer (P2P) electricity trading systems for CCS undertaken by a recent Keele graduate. The report was finalised at the end of April 2023 and as this was relatively recent and it is a complex area, the Board will be giving consideration to its findings over the summer.

Monitoring and Maintenance

We continue to closely monitor the performance of our systems through the ORSIS online portal, which produces daily alerts on systems which are not reporting any output or significantly underperforming. This means that problems can be

picked up and, under normal circumstances, addressed very quickly by our maintenance contractor. The number of issues arising continues to be relatively low though there has been a small increase in maintenance expenditure this year, largely due to the involvement of our maintenance contractor with investigating issues involving the installation of the batteries.

We also carry out an annual analysis of performance to identify any properties where performance may have dropped off without any immediately identifiable reason (e.g. where they have been void or a known fault has occurred). This is generally due to soiling e.g. from deposits from trees, in which case a cleaning contractor is engaged to address the problem.

Tenant Liaison

Both the Council and our helpline receive calls from tenants from time to time with queries about their PV systems. Some of these result from the tenants receiving calls or leaflets from private businesses offering various maintenance services including servicing and replacement inverters. When responding to queries we also remind tenants that they can maximise their benefit from their PV by using their appliances when the sun is shining as far as is practicable.

Community Fund

During 2019 we surveyed members on their views regarding varying the target interest rate and the establishment of a Community Fund. As a result, the Society agreed to create a mechanism to enable members to opt for one of 3 different levels of interest, donating any remainder to a community fund. In 2022 this resulted in a sum of £2299 to be available for community purposes.

During 2022 we used £6670 from the Community Fund to install solar immersion devices (iBoosts) in 20 of the properties with PV. These devices use excess solar to heat the water thus reducing the occupant's dependence on gas and increasing onsite self-consumption. We were able to install a further 15 iBoosts with funding received from the National Energy Action charity. The latter also have a data collection device which will enable NEA to collect information on the performance of the iBoosts which they will also feed back to us.

We have agreed with Beat the Cold that we are going to fund them to provide advice to all the tenants who have not been in receipt of the batteries. It was hoped it would be possible for this work to be carried out this winter (2022-23), but the energy crisis has meant that BtC has had to focus on work funded by the local authorities who form the bulk of its funding. It is now expected that this will take place over summer of 2023.

Member donations from 2021 and fee income from the battery project grant for Director time mean that the total of the Community Fund now stands at £8971. Options will again be presented to allow members to waive all or part of their interest from the 2022 surplus to contribute to the Community Fund. Members will be sent an email inviting them to opt for one of the levels 2-3 weeks in advance of the interest payment (likely to be December 2023). Members will also have the option of waiving their entire interest payment.

Zero Carbon Rugeley (ZCR)

As reported previously, CCS was a member of the ZCR consortium that was involved in designing a smart local energy system (SLES,) funded by Innovate UK, for Rugeley, a town of c.15000 people in Cannock Chase district,. The consortium was led by Equans (a division of Engie) and comprised a diverse group of partners, including Keele University and the West Midlands Combined Authority.

The ZCR project finished at the end of March 2023, producing a series of reports on different aspects of achieving net zero in a small town. Reports covered plans to achieve retrofit of buildings, transition to electric vehicles, raise funding for the process and achieve community understanding and engagement. CCS contributed a report on how to integrate community funding into such schemes.

Using the ZCR grant funding, CCS was able to achieve the installation of a 10kW PV system on the Rugeley Community Centre building owned by Rugeley Community Church, and to fund the installation of cavity wall installation in the building.

We also commissioned and provided a report on the pathway to decarbonise the building's heating system by installation of a heat pump, though unfortunately there was insufficient funding to enable this to be delivered.

A number of projects identified by ZCR are being examined in 2023 for potential community investment, most likely via Southern Staffordshire Community Energy, a fellow Community Benefit Society which operates across Staffordshire County and was responsible for the establishment of CCS as a specialist entity in 2015 . These projects include possible installation of PV on the Council-owned Leisure Centres in Rugeley and Cannock where Cannock Chase Council is considering the options for procuring PV systems on the buildings. SSCE is also in discussion with several schools who are also interested in the possibility of housing community owned PV on their buildings.

Legal Action and Costs

Legal action was threatened against both Mike Kinghan (Chair of CCS) and Peter Arnold (an ex-Director of CCS) for statements they made at the 2021 AGM. Peter Arnold proposed the Vote of Confidence in the Board (reference AGM 2021 Minutes section 12). The legal costs incurred in responding to this threat were covered by CCS insurance for Mike Kinghan, but not for Peter Arnold as he was no longer a CCS Director when he made these statements. The threatened legal action was not proceeded with and has now lapsed and Peter Arnold has paid £3,409.20 legal costs. The Board is therefore proposing to members at the June 2023 AGM that the Society pay these costs in view of the circumstances outlined.

Financial Results

The income for the year from the Feed-in Tariff and Export payments was £132,024 - up by nearly £12,000 as a result of higher insolation and significantly increased FiT Tariff during the year. The income comprised £109,677 from Feed-In Tariff payments and £22,347 from Export Tariff payments. Our cost of sales for the year increased by approximately £1100 compared to 2021, largely due to higher costs to insure our equipment.

The surplus for the year was £58,925 compared with £47,289 in the previous year. A portion of this surplus has arisen from grant monies received for our Battery Project to cover Directors' time and is being allocated to the Community Fund. The remainder will be made available for distribution to members, producing a headline interest rate of 9.7%, compared with 6.67% for 2021. It should be noted that, based on the experience of another CBS, we are in the process of contacting the FCA to ensure that our current interest rate policy is in keeping with their CBS guidelines.

The Board of Directors

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