

# Bristol Energy Cooperative

## Chair's Report 2020

### Principal activity

The cooperative's principal activities are:

- to enable meaningful cuts in carbon emissions, and reduce dependence on unsustainable sources of energy.
- to fund and implement renewable energy and energy efficient measures, in collaboration with people, communities and businesses.
- to work co-operatively with people and communities to make carbon reduction technologies available to all regardless of financial resources, and support mutual action to respond to the challenges of climate change.

### Fair review of the business

Bristol Energy Cooperative's (BEC's) key aim over this 2019/20 period was growing the business, through the development and installation of financially viable renewable energy projects, in order to:

- a) contribute more decarbonisation into the local energy system,
- b) strengthen its capability and resilience by increasing its revenue stream, and
- c) exert more influence in building a more sustainable and equitable local economy.

### The economic and political environment

Recent political and social developments have been encouraging in relation to BEC's mission, with Climate Emergency Declarations and Zero Carbon Target setting (the most relevant being Bristol's 2030 Carbon Neutral Goal adopted in July 2019), and the emergence of Extinction Rebellion suggesting public perception is shifting on Climate Change. However, the business environment for new Renewables projects has been challenging principally because of the phasing out of government backed Feed-in Tariff (FiT) subsidy over this period. This has essentially reduced predicted revenue for most new schemes to below financial viability: a situation only rectifiable by lower installation costs, higher energy pricing, or lower financing costs. Low wholesale energy prices have compounded this problem. Corporate business has responded where it can by building bigger to bring economies of scale to play but BEC was not in a position (much as it would have liked to be) to undertake projects at the scale required during this period.

During this year BEC has been centrally involved in Community input into Bristol City Council's City Leap program. It is expected that opportunities for large community energy projects will flow from this work, but the program has not yet reached the stage of contract deployment.

### New Project Development

As a consequence of the above circumstances project completion over this period has been restricted to one new rooftop 152kwp solar PV installation at Bristol Indoor Bowls Club. This installation however is notable as BEC's first unsubsidised and largest rooftop array and was energized just before Covid 19 lockdown restrictions came into effect.

Considerable development work has been undertaken on projects of varying scale and technology, many of which are still 'live'. In the short term the net financial effect has been to incur 'work in progress costs' without the benefit of new revenue streams generated by completed installations.

There have been significant milestones achieved on projects in development. An example is the Bristol Community Hydro Scheme at Netham Weir. This project is being developed without FiT subsidy and received encouraging support from a donation-based crowdfund which allowed development work to continue with minimal further at-risk funding from BEC. As a result, a large grant application was made to the European Regional Development Fund which was successful in reaching the final application stage in April and is currently in end stage negotiation. Both the crowdfund, and the scale of this grant application are BEC 'firsts' and are an indicator of its increasing capability.

### Performance of existing assets

BEC's Solar PV portfolio again performed well with both solar farms and the collective rooftop arrays all above predicted output, with total portfolio generation 103% of predicted output for 2019. Total electricity generation for the year was 9.3 Gigawatt-Hours (GWh), the equivalent electricity use of over 3000 average UK homes. Cumulative electricity generation from BEC's inception to the end of March 2020 has been 35.6 GWh equivalent to a saving of approximately 10,000 tonnes of CO<sub>2</sub> at current average grid carbon intensity levels.

Electricity sales revenue from the rooftop installations matched expectations but sales revenue from the solar farms, which provides approximately half of BEC revenue, was held back by low market wholesale electricity prices. The safety-net of the Feed-in Tariff minimum export price has been exploited and the generation FiT income has been unaffected, the net effect being slightly disappointing rather than financially problematic. The Lovedon Fields grid servicing battery has continued to be a rich source of learning about battery operation and its associated complex revenue streams. The project is not profitable yet and may not become so because of its small size but, because of this size, this is not having a significant effect on BEC's overall finances. Operating this project has however enabled serious larger scale battery and microgrid development work which it is hoped will bring profitable battery projects on stream within the next year.

## BEC's Community Joint Ventures

### Bright Renewables

Bright Renewables is a 100% community-owned solar asset management company, set up to replace asset management services from Mongoose Energy and provide appropriate and high-quality support to community energy organisations around the UK. It started operations in November 2018 and provides BEC with asset management services for our two solar farms. BEC has paid £34,700 for 34,700 shares in the company. Bright Renewables aims to grow its community and commercial client base to enable profitable operation at an efficient scale. If this is achieved, founding member/owners will take 'dividends' in the form of reduced asset management fees and may in time be able to take out their founding equity stake.

### Microgrid Foundry

This joint venture of which BEC is a major stakeholder was incorporated as a company in January 2019 to deliver and manage community microgrids in new housing developments. BEC has paid £81,677 for 81,677 shares in Microgrid Foundry which is contributing to start-up and development costs. Funding of each microgrid installation will be taken on by individual community energy organisations. BEC's first microgrid project at Water Lilies housing development in Lawrence Weston, Bristol, is currently being installed. More information about this initiative can be found at [www.microgridfoundry.uk](http://www.microgridfoundry.uk) and [www.brightgreenfutures.co.uk/projects/water-lilies](http://www.brightgreenfutures.co.uk/projects/water-lilies).

### Zero West

BEC has continued to provide significant support to Zero West, which is working to accelerate the zero-carbon transition in the West of England and helping create the environment for larger-scale community energy projects in the region. More information is available at [zerowest.org](http://zerowest.org).

### A Note on Refinancing

It had always been the intention to refinance the relatively expensive loans linked to BEC's two solar farms after a few years of successful operation. The refinancing of the Puriton solar farm loan was completed during the 2019/20 financial year. This unfortunately became a protracted process and incurred costs considerably above reasonable expectations. The new loan has achieved its objective of reducing long-term financing costs and improving overall project business performance, but the one-off refinancing cost has had a negative effect on this year's profit.

Refinancing of BEC's other solar farm at Lawrence Weston has now also been achieved. It went more smoothly and will show itself in the 2020/21 accounts.