

# Finance and Resources Committee

10.00am, Thursday, 4 March 2021

## Edinburgh Community Solar Co-operative – Battery Proposal

|                     |         |
|---------------------|---------|
| Executive/routine   | Routine |
| Wards               |         |
| Council Commitments |         |

### 1. Recommendations

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- 1.1 That Committee grant a 10-year Licence to Edinburgh Community Solar Co-operative to install batteries in 3 Council schools: Buckstone Primary School, Canal View Primary School and Oaklands School.

**Stephen S. Moir**

Executive Director of Resources

Contact: Paul Jones, Energy and Sustainability Manager,  
Property and Facilities Management, Resources Directorate

E-mail: [paul.jones@edinburgh.gov.uk](mailto:paul.jones@edinburgh.gov.uk) | Tel: 0131 469 3607

## Edinburgh Community Solar Co-operative – Battery Proposal

### 2. Executive Summary

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- 2.1 In 2016, Edinburgh Community Solar Co-operative (ECSC) installed 1.4MW of solar PV panels in 24 Council buildings. ECSC are close to completing the installation of six additional solar installations on key Council and Edinburgh Leisure buildings. In 2018, ECSC received a grant from the Scottish Government's Community and Renewable Energy Scheme (CARES) to support the installation of batteries in Council owned properties. This report seeks approval to grant a licence to ECSC to install batteries in 3 Council buildings with ECSC owned solar panels. The batteries will increase the amount of locally generated solar electricity used in the schools.

### 3. Background

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- 3.1 Edinburgh Community Solar Co-operative (ECSC) is one of the largest urban renewables projects in the UK. Three Elected Members sit on the [board of ECSC](#) (Cllrs Macinnes, Cameron and Corbett).
- 3.2 In August 2015, the Finance and Resources Committee provided approval to [grant a 21 year licence](#) to Edinburgh Community Solar Co-operative (ECSC) to install solar PV panels on the roofs of Council owned buildings. In September 2015, ECSC raised £1.4m through a community share offer and subsequently installed 1.4MWh solar PV across 24 Council owned buildings.
- 3.3 In August 2019, Finances and Resources Committee considered a proposal from ECSC to install solar panels on a further 11 Council buildings. Following approval, fund raising and further survey work, solar installations have been progressed in 6 buildings.
- 3.4 Historically, batteries have been used for off grid buildings and to provide backup power for emergency lighting and servers in the event of a power outage. Over the last decade, battery technology has improved significantly as applications, such as electric vehicles, drive the technology forward. There is potential for batteries to be used to maximise efficiencies of onsite generation in buildings and provide a route

to reducing electricity demand during times that incur peak electricity tariffs. ECSC wish to install batteries at some of their installations and require a 10-year licence to be able to do so, which is the purpose of this report.

## 4. Main report

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- 4.1 In 2018, ECSC received a grant from the Scottish Government's Community and Renewable Energy Scheme (CARES) to support the installation of batteries in Council owned properties. Under the terms of the grant, CARES will fund 90% of the project, with the remaining funding to be provided from ECSC.
- 4.2 Following the award of funding, ECSC appointed [Changeworks](#) to support the development of the battery proposal. Changeworks carried out a review of Council buildings with ECSC owned solar panels installed. The main consideration was the amount of excess solar electricity generated on site but exported to the grid. This therefore provided the basis through which suitability for the installation of batteries could be considered as batteries offer the potential to store excess solar generation produced by the panels and release back to the building when required. Following this exercise and subsequent survey work, 3 schools were identified as having the best potential: Buckstone Primary School, Canal View Primary School and Oaklands School.
- 4.3 A tender was issued in late 2019 for the installation of batteries and Locogen were appointed to carry out design and installation work. The project has been delayed by COVID 19, but ECSC are now at a point whereby they need to progress with installations or risk losing CARES funding.
- 4.4 The batteries will be located in existing plantrooms, and whilst they will take up space, they have a low overall footprint. The total cost of the project is projected to be £94,588. 90% of the funding has been awarded by Local Energy Scotland via CARES (£85,129) and ECSCS will raise the additional 10% (£9,459) from reserves or borrow the capital from other co-ops.
- 4.5 Batteries are still relatively expensive, and the financial benefits of the proposed project are modest (under £1k/annum for each party). ECSC will receive an increased income as the rate paid for electricity exported to the grid is lower than grid supply costs. The Council will pay a fixed rate of 13.5p/kWh for electricity stored in the battery and subsequently used on site. This is in line with 2020/21 tariffs and therefore initial savings are negligible. However, as the 13.5p/kWh tariff is fixed, the Council will make a saving from any inflation in energy price.
- 4.6 The main benefit of the project is that it offers a low risk opportunity for both the Council and ECSC to trial and monitor the application of batteries in its buildings. This will help inform decision making for future new build projects and will help support the delivery of the Council's 2030 net zero carbon targets.

- 4.7 Under the present proposal, the battery will only be used to store excess solar generation. However, there is potential to charge the battery at times when electricity is cheaper, and release the electricity when costs are higher. The control systems required to cycle the battery in this way would require additional investment. The Council will work collaboratively with ECSC to investigate this option further.

## 5. Next Steps

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- 5.1 Preparatory work has already been undertaken to draft the associated variation to the existing legal agreement with ECSC and this will be finalised if approval to grant a licence is received.
- 5.2 ECSC have also undertaken work to finalise design details, so if the licence is approved, works to install the batteries will be scheduled.

## 6. Financial impact

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- 6.1 As detailed in the report, there is limited financial benefit from this proposal. ECSC will own the battery during the term of the lease and will therefore be responsible for the inspection and maintenance of the battery.

## 7. Stakeholder/Community Impact

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- 7.1 Edinburgh Community Solar Cop-operative are a community benefit society with over 540 members. They aim to maximise the social, economic and environmental benefits of renewable energy.
- 7.2 The installation of batteries will help increase the use of renewable generation on the associated buildings. The knowledge gained from this project will contribute towards the reduction of building related carbon emissions and assist in the delivery of Council obligations under the [Climate Change Act \(Scotland\)](#).

## 8. Background reading/external references

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- 8.1 [Finance and Resources Committee, August 2015, Approval to Grant a Licence to Edinburgh Community Solar Co-operative to Install Solar PV Panels on Council Owned Buildings](#)
- 8.2 [Finance and Resources Committee, August 2019, Edinburgh Community Solar Co-operative – Phase 2](#)

## **9. Appendices**

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9.1 Not applicable.