

# Transport and Environment Committee

10.00am, Thursday 14 January 2014

## Edinburgh Community Solar Cooperative Proposal – referral from Corporate Policy and Strategy Committee

Item number	8.4
Report number	
Wards	All

### Links

Coalition pledges	See attached report
Council outcomes	See attached report
Single Outcome Agreement	See attached report

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# Terms of Referral

## Edinburgh Community Solar Cooperative Proposal

### Terms of referral

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The Corporate Policy and Strategy Committee on 3 December 2013 considered a report on a proposal by Edinburgh Community Solar Cooperative for the development of a community owned Solar Photovoltaic scheme on council buildings.

The Corporate Policy and Strategy Committee agreed:

- 1) To approve the signing of a Memorandum of Understanding between the City of Edinburgh Council and the Edinburgh Community Solar Cooperative.
- 2) To note the educational, environmental and community benefits associated with the progression of the scheme.
- 3) That each project be checked on a one on one basis, to determine that they adhered to the conditions stated and then each project be referred to the Transport and Environment Committee.
- 4) To refer the report to the Transport and Environment Committee in January 2014 for information.

### For decision/action

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The Corporate Policy and Strategy Committee has referred the attached report to the Transport and Environment Committee for information.

### Background reading / external references

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Corporate Policy and Strategy Committee 3 December 2013

### Links

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<b>Coalition pledges</b>	See attached report
<b>Council outcomes</b>	See attached report
<b>Single Outcome Agreement</b>	See attached report
<b>Appendices</b>	Report by the Director of Corporate Governance

# Corporate Policy and Strategy Committee

10am, Tuesday, 3 December 2013

## Edinburgh Community Solar Cooperative Proposal

Item Number	7.9
Report number	
Wards	All

### Links

Coalition pledges	<a href="#">P15, P33, P50, P53</a>
Council outcomes	<a href="#">All</a>
Single Outcome Agreement	<a href="#">S04</a>

### Mark Turley

Director of Services for Communities

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# Executive Summary

## Edinburgh Community Solar Cooperative Proposal

### Summary

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The Council wants to support a proposal by Edinburgh Community Solar Cooperative (ECSC) for the development of a community owned Solar Photovoltaic (PV) scheme on Council buildings.

Under the scheme, it is proposed that ECSC will put forward proposals to procure, install and manage solar PV panels sited on the roofs of Council buildings. Initial consultation has taken place between officers and ECSC to establish feasibility.

These initial discussions have identified that there is a need to formalise the relationship between the Council and ECSC in the form of a Memorandum of Understanding (MoU).

This report seeks approval to enter into the MoU and therefore provide a remit to maintain a dialogue with ECSC.

### Recommendations

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It is recommended that Corporate Policy and Strategy Committee:

1. Approve the signing of a Memorandum of Understanding between the City of Edinburgh Council and the Edinburgh Community Solar Cooperative.
2. Note the educational, environmental and community benefits associated with the progression of this scheme.
3. Refer the report to the Transport and Environment Committee in January 2014 for information.

### Measures of Success

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The effective delivery against Capital Coalition Pledge commitments and objectives. Specifically to address the Council's commitment to the development of community energy cooperatives under the Capital Coalition's pledge 53.

Delivery against statutory requirements, specifically the Climate Change (Scotland) Act 2009, which requires the Council to contribute to national emissions reduction targets, deliver any statutory adaptation programmes and act in a sustainable manner.

Reductions in costs and carbon associated with energy in operational buildings.

### Financial Impact

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There will be no up-front capital cost to the Council from the installation of the solar PV panels. However, there will be administration and legal costs associated with supporting the proposal.

Under the scheme presented by ECSC, the Council will pay ECSC for solar created electricity consumed on site at a reduced tariff from its standard tariff. Any reduction is likely to be around 10-15% and the Council would further benefit from reduced obligations under the Carbon Reduction Commitment Energy Efficiency Scheme (CRC).

The financial benefit to the Council from the ECSC proposal is likely to be slight. The income generated from this scheme will be channelled towards investors and the community fund rather than back to the Council.

## **Equalities impact**

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The encouragement of community energy cooperatives is closely aligned to equality and enables progress against the Equality Act 2010 duties to eliminate illegal discrimination, victimisation and harassment, advance equality of opportunity and foster good relations. In addition, progress in this area also enables the enhancement of human rights for citizens and service users.

## **Sustainability impact**

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The impacts of this report in relation to the three elements of the Climate Change (Scotland) Act 2009 Public Bodies Duties have been considered. In summary, the proposals in this report will help achieve a sustainable Edinburgh because they encourage the reduction of carbon emissions, increase the city's resilience to climate change impacts and improve social justice, economic wellbeing and environmental good stewardship.

## **Consultation and engagement**

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The MoU has been prepared in consultation with colleagues in Corporate Property, Legal Services and Commercial and Procurement Services.

## **Background reading/external references**

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- Sustainable Edinburgh 2020 – <http://www.edinburgh.gov.uk/sustainableedinburgh>
- Scotland's Climate Change Declaration – <http://climatechange.sustainable-scotland.net/>

## Edinburgh Community Solar Cooperative Proposal

### 1. Background

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- 1.1 The Council Leader asked that the Council support a proposal by the Edinburgh Community Solar Cooperative (ECSC) for the development of a community owned Solar Photovoltaic scheme on Council buildings. This scheme comes under the Capital Coalition's pledge to encourage the development of Community Energy Cooperatives (pledge 53).
- 1.2 Under the scheme, it is proposed that ECSC procures, installs and manages solar PV panels on the roofs of Council buildings across Edinburgh's property estate.
- 1.3 The proposed scheme will produce revenue for ECSC through the UK Government's Feed in Tariff (FiT) payments for the electricity generated by the panels and any export of electricity to the grid (see Appendix 1 for FiTs). Council buildings with panels installed will have access to the electricity generated and it is proposed that the Council pays the ECSC (at a reduced tariff) for any electricity used by the building users. This will require setting up a power purchase agreement between the Council and ECSC.
- 1.4 ECSC will finance projects through a community share offering with shareholders getting a 5% return on investment. Surplus income from the scheme will be invested into the local community through a community fund, targeting carbon reduction and fuel poverty.
- 1.5 The profiles of the founder members of ECSC are provided in Appendix 2. It is anticipated that the governance structure will be formalised by the end of November 2013. The group will be set up as a Community Benefit Society (Ben Com) as classified under the Industrial and Provident Societies Act 1965.
- 1.6 ECSC is a spin off from the Edinburgh Community Energy Hub a sub group of the Edinburgh Sustainable Development Partnership. The Council has played a key role in encouraging the formation of this group.
- 1.7 The Edinburgh Community Solar Cooperative proposal is part of a range of energy related projects under consideration by the Council.

### 2. Main Report

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- 2.1 The principal driver for this proposal is the Council's commitment to the development of community energy cooperatives under the Capital Coalition's

pledge 53. There are also strong links to the Council's obligations to reduce greenhouse gas emissions (pledge 50).

- 2.2 The scheme complements pledges that promote investment in Edinburgh (pledge 15) and that strengthen and support communities (pledge 33).
- 2.3 Capital raised through the share offering will be determined by the investment required for any proposed PV scheme with an expected headline return of 5% per annum to investors. Share prices will start at £250 per share.
- 2.4 Through the scheme, ECSC will re-invest funds into the local community bringing with it the potential to improve the well-being of residents. In the early years of the scheme contributions to the community fund will be modest, but will increase as the ECSC buys back equity from its members.

### **3. Memorandum of Understanding**

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- 3.1 Following advice from Corporate Governance it is agreed that a Memorandum of Understanding (MoU) will provide the appropriate vehicle to develop this proposal.
- 3.2 The MoU is designed to facilitate the following arrangements between the Council and ECSC.
  - 1. Working together in good faith to explore how the Council can reduce carbon emissions through solar energy generation on schools, public buildings and land.
  - 2. The development of ECSC's proposal to own and manage a solar energy scheme to maximise the socio-economic benefit of solar energy generation to the local Edinburgh Community including building community resilience, alleviating fuel poverty and creating a fund for community projects.
  - 3. Carrying out joint research into community based solar energy projects and identifying opportunities for people in Edinburgh to invest and secure a return from community-based solar energy projects. In addition, the parties may explore a broader range of energy services relating to renewable energy generation and use.
  - 4. Through a technical survey of land and buildings, jointly consider the suitability and implementation of proposed projects including quantifying the scale of projects, identifying potential constraints and assessing the potential demand for solar energy from building users.
  - 5. Developing a joint communications plan and publicise the cooperation outlined in this MoU and the wider benefits of projects.
- 3.3 The MoU will remain in force for a period of three years.
- 3.4 The MoU is a statement of intent and does not create legal obligations between the parties.

- 3.5 All proposed projects will be the subject of a separate Project Agreement. ECSC acknowledges that the Authority has procurement obligations under the Public Contracts (Scotland) Regulations 2012 and its internal Contract Standing Orders.
- 3.6 The MoU is non-exclusive therefore both organisations reserve the right to work independently or with other organisations or partners to deliver renewable energy projects.
- 3.7 The MoU has been based on a successful model adopted by Bath and North East Somerset Council to deliver a community solar energy project across their buildings.

#### **4. Further Legal and Procurement Considerations**

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- 4.1 Any proposed solar PV project will be subject to a full options appraisal in line with the Council's obligation to deliver best value and meet the Council's Standing Orders and EU Procurement Legislation.
- 4.2 Further legal consideration will be given to the potential set up of any lease agreements governing the use of Council roofs and any power purchase agreements governing onsite use of electricity from the solar PV panels.
- 4.3 Any subsequent agreement between the Council and the ECSC will require to be formalised in a legally binding contract for the duration of the scheme.
- 4.4 Under the scheme presented by ECSC, the Council will pay ECSC for solar electricity consumed on site at a reduced tariff from its standard tariff. Any reduction is likely to be around 10-15%. The Council will also benefit from reduced taxation under the Carbon Reduction Commitment Energy Efficiency Scheme (CRC).

#### **5. Property Considerations**

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- 5.1 An initial assessment has been carried out across the Council estate to identify properties with outline suitability for the scheme. This has been rounded down from 100 to 47 properties. An options appraisal will be carried out for properties on an individual basis.
- 5.2 More detailed work will be required to establish full suitability, including a survey of roofs and electrical infrastructure.
- 5.3 Future agreement between the Council and ECSC for the use of roof space for solar PV panels would likely be for at least 20 years. Current asset strategies do not give a clear indication of the properties that will remain operational over this time. Consultation with service areas will be required to ascertain the properties with the greatest longevity. There will be an inherent risk with any selection of buildings and the outcomes of any changes to property use or ownership will need to be fully defined in legal contracts.
- 5.4 Consideration needs to be given to the likelihood of maintenance on the selected roofs over the 20 year period. ECSC would require re-imburement for any significant interruptions to power generating capacity.



- 5.5 Clarification of insurance, risk, access to and maintenance of the panels would need to be fully defined in contract documents.
- 5.6 Current active projects across the Council's property estate include works to improve the energy efficiency of buildings and raising awareness of energy consumption. The proposed solar PV proposal would complement existing initiatives by further reducing associated carbon emissions and could be aligned with existing strategies to raise awareness of energy use across the Council.
- 5.7 The proposal from ECSC is independent from other solar PV proposals being developed by the Council. The MoU provides a platform for the Council and ECSC to identify potential synergies and opportunities for joint working.

## 6. Risks

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- 6.1 The Council is seeking to establish a relationship with ECSC to jointly investigate and develop the solar cooperative proposal. To avoid reputational risk to the Council proposed projects will adhere to Council procurement and best value obligations. There is wide interest in solar PV schemes as a source of revenue both from social enterprises and from private equity.
- 6.2 The MoU is non-legally binding and therefore does not commit the Council to installing solar PV panels on roofs.
- 6.3 If the scheme encountered financial or operational difficulties there is a potential risk to the Council's reputation.
- 6.4 If progressed, a potential major risk to ECSC could be loss of revenue due to the solar PV panels failing to operate. The Council would bear some risk for this in the following scenarios: required roof repairs/maintenance involving the removal of the panels for an extended period, damage/vandalism to panels, property closure/demolition (might involve relocation of panels), and failure of Council owned electrical infrastructure.

## 7. Recommendations

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It is recommended that Corporate Policy and Strategy Committee:

- 1. Approve the signing of a Memorandum of Understanding between the City of Edinburgh Council and the Edinburgh Community Solar Cooperative.
- 2. Note the educational, environmental and community benefits associated with the progression of this scheme.
- 3. Refer the report for information to the Transport and Environment Committee in January 2014.

**Mark Turley**

Director of Services for Communities

<b>Coalition pledges</b>	<p>P15 - Work with public organisations, the private sector and social enterprise to promote Edinburgh to investors.</p> <p>P33 - Strengthen Neighbourhood Partnerships and further involve local people in decisions on how Council resources are used</p> <p>P50 - Meet greenhouse gas targets, including the national target of 42% by 2020.</p> <p>P53 - Encourage the development of Community Energy Cooperatives.</p>
<b>Council outcomes</b>	All
<b>Single Outcome Agreement</b>	S04 - Edinburgh's communities are safer and have improved physical and social fabric.
<b>Appendices</b>	<p>Appendix 1 – Feed in Tariffs</p> <p>Appendix 2 – Edinburgh Community Solar Cooperative</p>

## Appendix 1 – Feed in Tariffs

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The Feed in Tariff (FIT) is a government payback scheme for electricity generated by renewables, and applies to a range of technologies including Solar PV, wind turbines, hydro and combined heat and power systems. The feed in tariff depends on:

- the size of the system
- what technology is installed
- when the technology was installed
- who put the technology in place (certified installers)

There are two parts of the tariff; the generation tariff and the export tariff. The generation tariff is applied to all electricity generated by the renewable system regardless of how much is consumed onsite. The export tariff is applied to any surplus electricity or electricity that has not been consumed onsite and is fed back into the grid. The FIT is based on a 25 year contract for solar (20 years for other technologies), resulting in the generation and export tariff prices being fixed at the same rate for the duration of the contract.

### Solar PV Feed in Tariff

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For solar Photo-Voltaic (PV), the applied generation tariff is determined by two factors; a) the power rating of the installed system and b) the building's Energy Performance Certificate (EPC).

- Higher Rate: applies to a building that has an EPC rating of 'D' or higher
- Medium Rate: applies to a building if the owners/estate have 25 or more PV installations already installed (which is 90% of the higher rate)
- Lower Rate: applies to a building that has an EPC rating below a 'D'

On 31<sup>st</sup> December 2012, the energy efficiency requirement was relaxed for 'community energy projects' and schools. This relaxation removed the requirement for the building to have an EPC rating of 'D' or higher to qualify for the higher rates.

The FIT rates have decreased considerably since its launch in 2010. The rate for a 4kW or less PV system in 2010/11 was 45.4p/kWh, with an export rate of 3.2p/kWh. The revised rates from 1<sup>st</sup> January 2014 to 1<sup>st</sup> April 2014 for the same system are 6.61-14.9p/kWh, with an export rate of 4.64p/kWh.

FIT rates for Solar PV have an inbuilt depression of tariffs. The pre-planned depression is a 3.5% reduction every 6 months. There is an additional option for a contingent depression where up to two consecutive depression cuts can be skipped if uptake is low. There is also scope to increase the percentage depression to 28% if deployment is high.

Feed in Tariff Rates (Jan 2014 – March 2014)

System Type	Lower Rate (p/kWh)	Medium Rate (p/kWh)	Higher Rate (p/kWh)
New Build Property with installed capacity of 4kW or less	6.61	13.41	14.90
Current property with installed capacity of 4kW or less	6.61	13.41	14.9
Total Capacity greater than 4kW but not exceeding 10kW	6.61	12.15	13.50
Total Capacity greater than 10kW but not exceeding 50kW	6.61	11.31	12.57
Total capacity greater than 50kW but not exceeding 100kW	6.61	9.64	10.71
Total capacity greater than 100kW but not exceeding 150kW	6.61	9.64	10.71
Total capacity greater than 150kW but not exceeding 250kW	6.61	9.22	10.25
Total Capacity exceeding 250kW	6.61	6.61	6.61
Stand Alone (not wired or attached to a building)	6.61	6.61	6.61
Export Tariff	4.65	4.64	4.64

### Founder Member Profiles

#### Paul Phare

Paul is the Scotland Development Manager for Energy4All. He has a degree in manufacturing systems engineering from Bristol University. His Dissertation investigated the viability of domestic wind systems. Paul joined the renewable sector in 2003 with Vesta Celtic, and then worked with community groups in the Highlands of Scotland to develop renewable energy projects, delivering a Scottish Government funding programme. Paul was involved with the first community owned wind farm in Scotland on the Isle of Gigha. Paul has continued to work with many communities in Scotland across a range of technologies and at all scales, but particularly with biomass and wind. In 2008 Paul joined Energy4All where he has helped to deliver three new wind energy co-operatives and has become well known within the Scottish renewable energy sector. He is committed to developing a large urban solar project in the city of Edinburgh which emulates successful projects in England, and successful rural projects focused around wind power.

#### Dr. Johanna Carrie

Johanna has a PhD in an energy related subject and an MSc in Ecotourism. She has been a Member of Edinburgh Community Energy Co-operative for many years and served on its board since 2011. She has been Chairperson of Transition Edinburgh Pentlands since 2008. This community group received Climate Challenge funding for a project to provide energy workshops in 3 local primary schools ( 2012 ) and has supported local householders to cut their energy consumption by 5% by the end of 2013 . Previously she was Chairperson Transition Edinburgh 2010 -2012. She is a member of the Fairmilehead Community Council and Pentlands Neighbourhood Partnership Environment, Transport and Infrastructure sub group.

#### Doug Prentice

Douglas is CEO of GeoCapita Ltd a London based FCA registered Mutual engaged in the development of sustainable projects in renewable energy, energy efficient buildings, climate change and related areas. He holds an MA in Economics from Edinburgh Uni, an MSc in Renewable Energy from Napier University and has recently completed a PhD at Granada University in buildings energy efficiency and its significance in climate change.

He lectures part time at Napier University, Granada University and Politecnico Milano Italy in climate finance. With the Universities and GeoCapita he is engaged on a number of UK and international projects. He is a member of Edinburgh Council's Expert Group advising the Council on cooperative development with emphasis on energy and housing.

#### David Hawkey

David is a Research Fellow at the University of Edinburgh. His research explores the development of sustainable energy systems at a local level, particularly in

urban areas. He works with a wide range of local authorities, housing associations and community groups to understand how coordinated action on energy at a local level can be achieved in ways that are sustainable and scalable. He was a director of the Edinburgh Community Energy Cooperative from 2011 until it was wound down, and has previously served as Treasurer for a small charity, Sustainable Consumption Opportunities Today (SCOT).

### **Stuart Hay**

Since 2005, Stuart has worked as Senior Consultant with Changeworks focusing on the design and development of both mainstream and innovative domestic energy efficiency and micro-renewables projects. A key focus of his work is managing a Service Level Agreement with the City of Edinburgh Council to fund and deliver energy efficiency programmes. In this respect he has assisted in securing funding from the Scottish Government and European funders for a range of projects. This practical delivery focused role builds on previous campaigns and strategy experience gained as Head of Policy and Research at Friends of the Earth Scotland. Previously he worked for the Scottish Wildlife Trust, Help the Aged Scotland and as a political researcher in the Scottish Parliament.

He is a board member and company secretary of Transform Scotland, serving in a voluntary capacity. He has been formally involved with Transform Scotland since 2003, assisting the Director with strategy and governance matters. As a qualified town planner, he has strong interest in transport and environment issues. He has been a board member of the Edinburgh Community Energy Co-operative since 2008, assisting in securing Climate Challenge fund grant for insulation and renewables project, focusing on Leith.