

# Transport & Environment Committee

10am, Tuesday, 29 October 2013

## Solar Photovoltaic Energy – a Strategic Approach – Referral from the Economy Committee

|               |     |
|---------------|-----|
| Item number   | 8.9 |
| Report number |     |
| Wards         | All |

### Links

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

### Carol Campbell

Head of Legal, Risk and Compliance

Contact: Hannah King, Committee Officer

E-mail: [hannah.king@edinburgh.gov.uk](mailto:hannah.king@edinburgh.gov.uk) | Tel: 0131 529 4121

# Terms of Referral

## Solar Photovoltaic Energy – a Strategic Approach

### Terms of referral

---

On 17 September 2013, the Economy Committee considered a report by the Head of Economic Development which set out an approach to supporting jobs and investment in the city's energy sector and detailed proposals to develop the business potential of solar photovoltaic energy arrays.

Proposals were also detailed on developing, in collaboration with other Council service areas and external partners, a strategic framework for jobs and investment in the energy sector, with a particular focus on renewable energy potential. The strategic framework would build on related work already completed or underway, particularly the Sustainable Energy Action Plan (SEAP).

The Economy Committee agreed:

- 1) That the Economic Development Service develops, in collaboration with other Council services, a strategic framework to support jobs and investment in the city's energy sector, building in provision for solar photovoltaic arrays and other innovative technologies.
- 2) To receive an interim report on the energy framework by February 2014.
- 3) To instruct the Director of Services for Communities to identify Council Land (such as landfill sites) which could be allocated for the necessary 25 years to ensure adequate return on investment and report back within one cycle.
- 4) To note that it was the responsibility of the Transport and Environment Committee for delivering these projects.
- 5) To recommend to the Transport and Environment Committee that solar photovoltaic array projects on these sites should be delivered at no capital cost to the Council.
- 6) To recommend to the Transport and Environment Committee that a proportion of the electricity produced by these projects be directed to mitigate against fuel poverty in the City.
- 7) To refer the report by the Head of Economic Development to the Transport and Environment Committee.

### For decision/action

---

The Economy Committee has referred the attached report and the recommendations detailed at 5 and 6 above to the Transport and Environment for consideration.

## Background reading / external references

---

Economy Committee 17 September 2013

### Links

---

|                                 |  |
|---------------------------------|--|
| <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 Head of Economic Development |

# Economy Committee

10am, Tuesday 17 September 2013

## Solar Photovoltaic Energy – a Strategic Approach

Item number

Report number

Wards: All

### Links (to be updated)

Coalition pledges [P7; P15; P16; P17; P28; P49; P50](#)

Council outcomes [CO7; CO8; CO9](#)

Single Outcome Agreement [SO1](#)

### Greg Ward

Head of Economic Development

Contact: Lesley Martin, Sustainable Economy Manager

E-mail: [lesley.martin@edinburgh.gov.uk](mailto:lesley.martin@edinburgh.gov.uk) | Tel: 01321 529 4309

# Executive summary

## Solar Photovoltaic Energy – a Strategic Approach

### Summary

---

The purpose of this report is to set out an approach to supporting jobs and investment in the city's energy sector. The report also outlines a proposed approach to developing the business potential of solar photovoltaic energy arrays, setting this within the proposed wider strategic approach.

The report proposes to develop, in collaboration with other Council service areas and external partners, a strategic framework to jobs and investment in the energy sector, with a particular focus on renewable energy potential. The strategic framework will build on related work already completed or underway, particularly the Sustainable Energy Action Plan (SEAP).

Responding to current developer interest, the report includes specific reference to solar arrays and considers how this technology can be considered in the wider renewables context. The actions are centred on exploring the potential in a systematic and planned way, seeking expert advice where necessary to develop sound business cases, and considering how solar power can best complement other renewable technologies.

### Recommendations

---

The Economy Committee is asked:

- To agree that the EDS develops, in collaboration with other Council services, a strategic framework to support jobs and investment in the city's energy sector, building in provision for solar photovoltaic arrays and other innovative technologies
- To receive an interim report on the energy framework by February 2014
- To agree that the Director of Services for Communities consider the availability of Council land for the delivery of solar photovoltaic arrays in the city.

### Measures of success

---

The performance of the Economic Development Service (EDS) is measured using three Key Performance Indicators. Measures of success in moving towards a more

sustainable economy will be nested within these KPIs. However more research will be done to developing more tailored indicators which could include the success and growth of renewable energy-related companies. This will be set within the corporate performance management framework.

## **Financial impact**

---

The actions and outputs described in this report have been met from within the EDS revenue budget for 2013/14.

## **Equalities impact**

---

A full [Equalities Impact Assessment](#) was carried out on the Economic Strategy in February 2012. The focus of this report on sustainability principles should help further equalities objectives. This will be monitored as part of the ongoing process of operational plan review.

## **Sustainability impact**

---

The recommendations in this report are intended to lead to positive impacts on sustainability. Solar energy is a proven technology which reduces carbon emissions. An energy strategy offers the potential to make significant progress on encouraging renewable energy and promoting energy efficiency.

## **Consultation and engagement**

---

The content of this report was influenced through informal dialogue with internal consultees and potential developer interests.

## **Background reading / external references**

---

[Economic Strategy and Operational Plan for the Economic Development Service](#)

[Sustainable Edinburgh 2020](#)

## Solar Photovoltaic Energy – a Strategic Approach

### 1. Background

---

- 1.1 The corporate context for this report is the Sustainable Edinburgh 2020 Sustainability Strategy which includes the target for “renewable energy technologies contributing to at least 40% of energy consumption in the city”. The Council approved an Energy Policy in 2013 dealing with the energy management of its own buildings. A Sustainable Energy Action Plan (SEAP) is also in preparation. There is therefore as yet no overarching energy framework in place for the city, or any document which deals specifically with jobs and investment in the sector. However elements are contained within other Council strategies and policy documents, including the Economic Strategy and also planning, transport, and housing documents.
- 1.2 There are significant issues related to energy supply that affect the economy and Edinburgh’s future resilience. These include rising energy prices, the decline of indigenous energy supplies and uncertain access to foreign supplies. There is also the need to update energy infrastructure and the Council is currently engaging with Scottish Power to ensure that planning is done in the most rational way possible.
- 1.3 Notwithstanding risks and challenges, there are many business benefits arising from encouraging more renewable energy technologies. Such benefits include not just direct job creation but wider supply chain opportunities for local firms, enhancing the city’s reputation for knowledge and expertise in the field, and demonstration projects which can link to higher and further education teaching. The main government tool that supports increased renewable energy is the Renewables Obligation; this is further explained in Appendix 1.
- 1.4 As part of the Council’s support for the growth in renewables, the potential for solar energy is under review. There is increasing developer interest. Support for the potential of solar arrays is evidenced by the the Midlothian Campus of Edinburgh College plans to develop a “solar meadow” comprising 2500 photovoltaic panels, sufficient to power the equivalent of 170 homes. The development of large scale solar energy is increasingly taking the form of photovoltaic panels arranged in arrays. These are sometimes labelled “solar farms” although this terminology is not used by the Scottish Government. The

energy facility may be off or on grid. Whilst there are no emissions, there are other environmental impacts in terms of the chemicals used in manufacturing the panels, and visual impacts on local amenity. Such factors should be included in site identification.

- 1.5 The Council as landowner has the potential to support the development of solar arrays and other sustainable technologies. For example the Millerhill site is being developed as a waste to energy facility. It has been suggested by developers as a potential site for an energy hub, which could include a solar array. There may be other such opportunities in the city. It is noted that the Council's landowning powers operate within certain constraints including: ensuring an adequate return on investment, building at no capital cost to the Council, and meeting other Council priorities such as fuel poverty.

## 2. Main report

---

- 2.1 A number of developers interested in the Renewables Obligation have shown interest in solar arrays and are keen to engage with the Council and other partners. There may be opportunities within all four city development zones, possibly as part of an "energy hub" with solar complementing other forms of renewable energy. There is evidence supporting the economic potential of photovoltaic solar arrays.
- 2.2 The appropriate pace and scale of such solar photovoltaic arrays, needs to be considered as part of a systematic evaluation process linked to the Council's development planning process. A proper evaluation of site options and business benefits would help optimise the jobs and investment potential and ensure that solar energy is considered equitably alongside other renewable energy technologies.
- 2.3 Such an approach would fit well within the development of an overall strategic framework to support jobs and investment in the city's energy sector. This would fit within the emerging SEAP. The parameters of the framework would need to be worked out but would be likely to focus on the jobs and investment potential of energy generation and consumption in the city. The scope would be likely to include the different energy sub-sectors, commercial retrofitting opportunities, and energy efficiency within city businesses. The approach offers the potential to address other priority issues such as fuel poverty.
- 2.4 The proposed approach by the Economic Development Service is to work with other Council service areas and external partners to:
  - Lead the development of a framework focussed on the jobs and investment potential of the city's energy sector, within which the potential for solar power would be clearly placed

- Seek expert knowledge and opinion on the potential for solar arrays for the city, using workshops and other events
- Ensure that a sound business case exists for any proposals coming forward from developers for solar and other renewable energy technologies.

### 3. Recommendations

---

The Economy Committee is asked:

- To agree that the EDS develops, in collaboration with other Council services, a strategic framework to support jobs and investment in the city's energy sector, building in provision for solar photovoltaic arrays and other innovative technologies
- To receive an interim report on the energy framework by February 2014
- To agree that the Director of Services for Communities consider the availability of Council land for the delivery of solar photovoltaic arrays in the city.

#### Greg Ward

Head of Economic Development

### 4. Links

---

|                          |  |
|--------------------------|--|
| <b>Coalition pledges</b> | <p><b>P7</b> - Further develop the Edinburgh Guarantee to improve work prospects for school leavers</p> <p><b>P15</b> - Work with public organisations, the private sector and social enterprise to promote Edinburgh to investors</p> <p><b>P16</b> - Examine ways to source new funding to support small businesses</p> <p><b>P17</b> - Continue efforts to develop the city's gap sites and encourage regeneration</p> <p><b>P28</b> - Further strengthen our links with the business community by developing and implementing strategies to promote and protect the economic well being of the city</p> <p><b>P49</b> – Continue to increase recycling levels across the city and reducing the proportion of waste going to landfill</p> <p><b>P50</b> - Meet greenhouse gas targets, including the national target of 42% by 2020</p> |
| <b>Council outcomes</b>  | <p><b>CO7</b> - Edinburgh draws new investment in development and regeneration</p> <p><b>CO8</b> - Edinburgh's economy creates and sustains job opportunities</p> <p><b>CO9</b> - Edinburgh residents are able to access job opportunities</p>   |

## **Appendix 1**

### **Background to the Renewables Obligation**

2. The Renewables Obligation (RO) is the main UK government financial support mechanism for renewable electricity projects (such as solar arrays). Smaller scale generation is mainly supported through the [Feed-In Tariff scheme \(FITs\)](#). The RO came into effect in 2002 in England, Wales, and Scotland. It places an obligation on UK electricity suppliers to source an increasing proportion of the electricity they supply from renewable sources.
3. A Renewable Obligation Certificate (ROC) is the green [certificate](#) issued for eligible [renewable electricity](#) generated and supplied to customers in the United Kingdom by a licensed supplier. ROCs are issued by [Ofgem](#) to accredited renewable generators. One ROC is issued for each megawatt-hour MWh of eligible renewable output.
4. An ROC is a digital certificate which holds details of exactly how a unit of electricity was made, by whom and finally who bought and used it. These ROCs are traded separately from the actual electricity itself and work as a bonus premium on top of the price paid for the unit. Energy companies in the UK are now required to generate a minimum of 10% of their electricity from sustainable sources. If they fail to meet this minimum amount required, they must buy ROCs on the open market to make up the shortfall.
5. The ROC therefore provides a financial incentive for producers of renewable energy to produce more renewable energy, since the more certificates that are produced, the more that can be traded.