

EXETER CITY COUNCIL

EXECUTIVE
4 DECEMBER 2012

CIVIC CENTRE SUSTAINABLE DEVELOPMENT PROPOSAL

1. PURPOSE OF THE REPORT

- 1.1 To consider the installation of photovoltaic arrays on the Civic Centre roof areas.

2. BACKGROUND

- 2.1 Reducing carbon emissions is a key strand of the Council's Corporate Plan. Photovoltaic installations can deliver savings on utility bills, income from the sale of surplus kWh fed back onto the national grid (Export Tariff) and income from the Government's Feed-In-Tariff scheme.
- 2.2 The Feed-In-Tariff scheme (FIT) provides a long term financial incentive for investment in renewable energy. Under this scheme, energy companies are obligated to pay an inflation-linked payment based upon the number of Kilo-watt hours (kWh) for electricity generated from renewable sources. The FIT is designed to last 25 years. Due to the popularity of this scheme, the incentive payments have already been reduced and will be further reduced for new projects after April 2013.
- 2.3 Two of the three roofs of the Civic Centre are viable for the installation of photovoltaic arrays. To date, the only corporate building fitted with a solar array is a new facility at Belle Isle Nursery, which was commissioned in October 2011. This array is producing results 41% higher than the original design proposal and will bring in an income of £4500 - £5000 in the current financial year. The return reflects the higher FIT payments available prior to x 2012, which are considerably higher than the current payments, and electricity exported back to the grid. In addition, there is a further saving from reduced energy bills, in the region of £7,000 per annum, as a result of the electrical energy generated on site.

3. WHAT CAN BE DELIVERED

- 3.1 Photovoltaics covering the available roof space on Phase I and II of the Civic Centre will create an array of 70kwh in total. It is prudent to install as many panels as possible, as the economies of scale reduce the costs of panels and provide for a more cost effective project.
- 3.2 This system will have an estimated energy saving performance of at least 65,000 kWh per annum. This estimate is based upon the Government's standard assessment calculation for the energy rating of buildings (SAP) and is a guideline that is followed in the project proposal in this report. The predicted carbon that will be offset by the renewable energy produced equates to 35 tonnes per year (equivalent to 125,000 miles driven by one of our refuse collection vehicles). A 70kW array will generate 64,973kWh, which would save the Council £7,475 per annum in reduced utility bills, together with an income from Fit of £8,466 per annum, and £1,500 from the sale of additional energy generated.

4. PROPOSALS

- 4.1 This proposal seeks to exploit the short lived opportunity to receive an income for the generation of the energy which, together with the anticipated saving in energy costs, would assist the Council's revenue budget. The level of CO2 emissions which would be saved is considerable and reaffirms this Council's on-going commitment to reducing carbon. For this reason, it is prudent that where opportunities arise, we look to provide similar photovoltaic schemes on other locations.
- 4.2 Installation costs of £90,000 would be required to install this level of photovoltaic array on the Civic Centre. This therefore is a major capital project for the Council and would need to be financed via borrowing – the annual revenue cost of borrowing would be in the region of £5,000 per annum.
- 4.3 The potential level of income the Council would receive for 25 years is approximately £17,500 per annum, made up from the FIT payments (estimated at £8,500 p.a.) together with the additional income which would be generated by "selling back" to the National Grid additional energy generated (estimated at £1,500 p.a.) and reduced energy bills (estimated at £7,500 p.a.). This means that if the Council were to invest in this scheme, it would be repaid in approximately 6 years. It would also generate an on-going income stream, which would exceed the annual borrowing costs by about £13,000 per annum.
- 4.4 If the Council decided not to undertake this itself, another option available is to use an energy company via an Energy Service Company Obligation (ESCO). Whilst this removes the majority of the capital investment requirement from the Council (£15,000 instead of £90,000), it would also remove the majority of the income potential (potentially only £75,000 in total received over the 25 years).

5. RECOMMENDED

- 1) That the Council takes advantage of the current FIT incentives and approves a capital contribution of £90,000 for the installation of photovoltaic arrays at the Civic Centre.
- 2) That further opportunities for the installation of sustainable photovoltaic arrays on Council assets where schemes provide a similar return are explored.

ASSISTANT DIRECTOR HOUSING & CONTRACTS
CORPORATE MANAGER, DEMOCRATIC AND CIVIC SUPPORT

Local Government (Access to Information) Act 1985 (as amended)

Background papers used in compiling this report:

None