

CARLISLE CITY COUNCIL

Report to:- Carlisle City Council

Date of Meeting:- 8th November 2011

Agenda Item No:-

Public

**Title:- SUSTAINABLE ENERGY PROJECT AT CIVIC CENTRE,
CARLISLE**

Report of:- Assistant Director (Resources)

Report reference:- RD.68/11

Summary:-

This report provides Members with details of the proposed installation of Solar Photovoltaic panels to the Civic Centre.

Recommendation:-

The Council is asked to approve the proposed implementation as set out in the attached report LE26/11.

Contact Officer: Peter Mason

Ext: 7270

Note: In compliance with section 100d of the Local Government (Access to Information) Act 1985 the report has been prepared in part from the following papers: Reports LE12/11, LE26/11 and Solar Photovoltaic Feasibility Assessments October 2011.



REPORT TO EXECUTIVE

PORTFOLIO AREA: ENVIRONMENT & HOUSING

Date of Meeting: 31st OCTOBER 2011

Public

Key Decision: Yes

Recorded in Forward Plan:

No

Inside Policy Framework

Title: SUSTAINABLE ENERGY PROJECT AT CIVIC CENTRE,
CARLISLE

Report of: THE ASSISTANT DIRECTOR LOCAL ENVIRONMENT and
ASSISTANT DIRECTOR (RESOURCES)

Report reference: LE26/11

Summary:

Report LE 12 11 was approved by the Executive and proposed various options for investment in renewable energy including solar photo voltaic modules. The criteria for approval was a return on investment of at least 9%. (Rate set as part of Asset Business Case assumptions where the capital cost will be funded from)

This report updates members on the suggested way forward based on the results of feasibility studies

Recommendations:

That the Executive:

1. Consider the feasibility assessments of the viability of Solar PV installations to various Council buildings and determine, if any, which buildings meet the criteria to have such an installation;

Note: In compliance with Section 100d of the Local Government Access to Information) Act 1985 the report has been prepared in part from the following papers: Solar Photovoltaic Feasibility Assessments October 2011

2. Subject to recommendation (3), approve installation of Solar PV at the sites identified as per recommendation (1), subject to the required agreements, planning permissions and consents;
3. Recommend to Full Council to approve the release of capital funding from the receipts of the sales identified in the Asset Business Plan to fund the installations up to a maximum of £200,000;
4. Delegate authority to the Assistant Director of Resources in consultation with the Executive Member for Resources and Executive Member for Local Environment and Housing to tender the work (which, for the avoidance of doubt, may include any design, build and installation work) and award the tender to the most economically advantageous bidder.
5. Delegate authority to the Assistant Director (Resources) in consultation with the Executive member for Resources and Executive Member for Local Environment to stop any particular installation project should it become apparent that the required timescales or returns will not be achieved.

Contact Officer: Angela Culleton

Ext: 7325

Note: In compliance with Section 100d of the Local Government Access to Information) Act 1985 the report has been prepared in part from the following papers: Solar Photovoltaic Feasibility Assessments October 2011

1. BACKGROUND INFORMATION AND OPTIONS

Report LE 12 11 was approved by the Executive and proposed various options for investment in renewable energy including solar photo voltaic modules. The criteria for approval was a return on investment of at least 9%. (Rate set as part of Asset Business Case assumptions where the capital cost will be funded from).

A specialist renewable energy and climate change consultant, visited the Civic Centre earlier in the year and delivered a presentation to officers on how Councils can take advantage of the Feed-in-Tariff. Capita Symonds were appointed to undertake a feasibility study for the City Council.

The principle of sustainable energy projects was discussed and supported at the Environment and Economy overview and scrutiny committee panel

A feasibility study on the Civic Centre indicates that a solar PV array of 25kWp can be accommodated on the roof and will provide a return of 9% on investment from the government's feed in tariff and the generation of electricity on site.

Unfortunately further feasibility studies of Council owned buildings but let to partner organisations did not give the required rate of return on the Council's capital investment unless all (or most) of the feed in tariffs and electricity offset value (NPV and IRR) are retained by the Council. However, discussions are to be held with Carlisle Leisure Ltd to establish whether a joint scheme could be progressed.

Other Council owned buildings did not give the required rate of return.

Additional Issues

i) Roof Assessments

In addition, the cost of detailed roof assessments or any subsequent strengthening works have not been factored into the figures and to mitigate risk, more detailed roof assessments by a structural engineer have been advised for most of the sites. (i.e. will the roofs last 25 years). This may mean intrusive surveys in some cases (i.e. removing/cutting through ceiling panels).

A structural engineer would need to assess the roof/buildings more thoroughly in each case to confirm this. All information received to date indicates that the Civic Centre roof is acceptable as is.

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ii) Tight Timetable

The return on investment can only be achieved if the various schemes are approved by the District Network Operator by the deadline of 31 March 2012 so any delays will impact directly on the feasibility of the project

Potential delays include the outcomes of further work including;

- a) Further surveys
- b) Planning applications
- c) Roof assessments by a structural engineer
- d) Tender process
- e) Award of tenders
- f) Installation works
- g) Approval of grid connection application (at least 45 days)

A potential project timetable is detailed at Appendix 1.

2. OPTIONS

Civic Centre

The assessments and supporting financial assessment clearly support the installation of the Solar PV panels on the Civic Centre Octagon roof and it is suggested that this is progressed as a matter of urgency to meet the tight installation deadline

Carlisle Leisure Ltd

A joint scheme with both partners providing some of the capital investment required to enable Carlisle Leisure to benefit from the off set tariff whilst the Council maintains its required return on investment. In this option, the share of capital costs between the two partners would be based on the percentage difference between the Feed in tariff plus electricity and the feed in tariff only, i.e.

| | |
|---------------------------|------------------------------|
| Sands Centre Capital Cost | £55,000 |
| FIT only | £5,389 |
| Electricity | £1,298 (19%) |
| Capital Cost to tenant | £10,450 (rate of return 12%) |
| Capital Cost to Council | £44,550 (rate of return 12%) |

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3. RECOMMENDATIONS

1. Consider the feasibility assessments of the viability of Solar PV installations to various Council buildings and determine, if any, which buildings meet the criteria to have such an installation;
2. Subject to recommendation (3), approve installation of Solar PV at the sites identified as per recommendation (1), subject to the required agreements, planning permissions and consents;
3. Recommend to Full Council to approve the release of capital funding from the receipts of the sales identified in the Asset Business Plan to fund the installations up to a maximum of £200,000;
4. Delegate authority to the Assistant Director of Resources in consultation with the Executive Member for Resources and Executive Member for Local Environment and Housing to tender the work (which, for the avoidance of doubt, may include any design, build and installation work) and award the tender to the most economically advantageous bidder.
5. Delegate authority to the Assistant Director (Resources) in consultation with the Executive member for Resources and Executive Member for Local Environment to stop any particular installation project should it become apparent that the required timescales or returns will not be achieved.

6. REASONS FOR RECOMMENDATIONS

The feasibility studies demonstrate that the recommended sites will achieve the required return on investment of at least 9% as set out in the asset business case and is an investment opportunity which will not be available to the same extent after 31st March 2012.

The project is time constrained and therefore delegations of authority are required to progress the project without delay within the deadline of 31st March 2012.

The project will contribute to the Council's sustainability use of energy and will help to mitigate the impact of rising energy costs for the Council.

The project will help to meet the Council's targets for the reduction of carbon dioxide emissions and climate change (25% reduction over 5 years).

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7. IMPLICATIONS

- Staffing/Resources – No impact
- Financial – Up to £200,000 from the capital receipts generated from the Asset Business Case will be required. Based on the figures in the feasibility study, the required rate of return on the investment is achievable. The cost of the Civic Centre and the Sands Centre would be a minimum of £125,000 depending upon further work that is needed and the level of the scheme finally implemented. Minimum annual savings would be £14,300 with 25 year savings being £533,491.
- Legal – The Council has the power to carry out works to its own buildings or, where they are leased, subject to the tenant's agreement. Any arrangement with a lessee should be properly documented.
- Corporate – Subject to this being scored as a significant project PAG will monitor progress against business case.
- Risk Management – Risk issues mainly in respect of tight timetable covered in report
- Environmental – Positive contribution
- Crime and Disorder – No impact
- Impact on Customers – No impact
- Equality and Diversity – No impact

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Impact assessments

Does the change have an impact on the following?

| Equality Impact Screening | Impact Yes/No? | Is the impact positive or negative? |
|--|----------------|-------------------------------------|
| Does the policy/service impact on the following? | | |
| Age | | |
| Disability | | |
| Race | | |
| Gender/ Transgender | | |
| Sexual Orientation | | |
| Religion or belief | | |
| Human Rights | | |
| Health inequalities | | |
| Rurality | | |

If you consider there is either no impact or no negative impact, please give reasons:

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.....

.....

If an equality Impact is necessary, please contact the P&P team.

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Appendix 2.

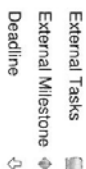
The following information is an indicative timeframe for the installation of Solar pv to Council properties as detailed in the attached report. The deadline for final completion and acceptance by is currently 31st March 2012. A summary of the main activities is also attached for information:

| Phase | Main Activities |
|-----------------------------|---|
| Further Surveys | Access and Bat surveys will be required. English Nature to complete Bat survey. |
| Structural Survey & Design | <p>The community centres are likely to need some roof strengthening work. A provisional/contingency sum will be put in the tender to cover the potential value of roof strengthening works going ahead</p> <p>The Sands, Pools and Tullie House are unlikely to need additional work but the structural engineer is reluctant to sign off without site assessment.</p> <p>The Civic will not need any strengthening work.</p> |
| Tender Process | Prepare Documents, CAD Drawings, advertise |
| Appoint Contractor | Evaluate and Award |
| PV System Design | Council to design array of panels with contractor |
| Planning Application | Apply to Council planning section for installation approval |
| Grid Application | Apply to Electricity North West |
| Installation | Contractor to complete installation to specific buildings |
| Register for Feed in Tariff | Council register for FIT with electricity provider |

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| ID | Task Name | Duration | Start | Finish | Predecessors | 2011 08/08 | September 2011 29/08 | 19/ |
|----|--|-----------------|---------------------|---------------------|--------------|---------------|-------------------------|-----|
| 0 | City council PV project rev 1 | 118 days | Wed 05/10/11 | Fri 16/03/12 | | | | |
| 1 | Project start | 0 days | Wed 05/10/11 | Wed 05/10/11 | | | | |
| 2 | Initial structural assessment | 12 days | Wed 05/10/11 | Thu 20/10/11 | | | | |
| 3 | Finalise feasibility and submit 1st draft | 5 days | Wed 05/10/11 | Tue 11/10/11 | | | | |
| 4 | Client review | 3 days | Wed 12/10/11 | Fri 14/10/11 | | | | |
| 5 | Feasibility final draft | 4 days | Mon 17/10/11 | Thu 20/10/11 | | | | |
| 6 | Prepare Tender Documents and T&Cs | 5 days | Fri 21/10/11 | Thu 27/10/11 | 5,2 | | | |
| 7 | Council provide relevant CAD drawings and elevations | 3 days | Fri 21/10/11 | Tue 25/10/11 | 5 | | | |
| 8 | Council review/finalise tender docs and put on CHEST | 1 day | Fri 28/10/11 | Fri 28/10/11 | 6,7 | | | |
| 9 | Tender Period | 10 days | Mon 31/10/11 | Fri 11/11/11 | | | | |
| 10 | Tender Submission assessment | 5 days | Mon 14/11/11 | Fri 18/11/11 | 9 | | | |
| 11 | Structural survey and Design | 3 wks | Mon 14/11/11 | Fri 02/12/11 | | | | |
| 12 | Tender award | 0 days | Fri 18/11/11 | Fri 18/11/11 | 10 | | | |
| 13 | Pre-start meeting and site assessments | 5 days | Mon 21/11/11 | Fri 25/11/11 | 12 | | | |
| 14 | PV system design | 2 wks | Mon 28/11/11 | Fri 09/12/11 | 13 | | | |
| 15 | Planning assessment | 8 wks | Mon 31/10/11 | Fri 23/12/11 | 8 | | | |
| 16 | DNO application/approval | 9 wks | Mon 28/11/11 | Fri 27/01/12 | 13 | | | |
| 17 | Preparation and pre-ordering | 10 days | Mon 30/01/12 | Fri 10/02/12 | 14, 15, 16 | | | |
| 18 | Site Works | 5 days | Mon 13/02/12 | Fri 17/02/12 | 17 | | | |
| 19 | Commissioning and Handover | 5 days | Mon 20/02/12 | Fri 24/02/12 | 18 | | | |
| 20 | Council Registers for FITS with electricity provider | 5 days | Mon 20/02/12 | Fri 24/02/12 | 19SS | | | |
| 21 | Council liaise internally with Building Control | 5 days | Mon 20/02/12 | Fri 24/02/12 | 19SS | | | |
| 22 | Buffer Zone | 15 days | Mon 27/02/12 | Fri 16/03/12 | 19, 20FF | | | |

Project: City council PV project rev 1
Date: Thu 20/10/11



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