FAREHAM
BOROUGH COUNCIL

Report to the Executive for Decision
12 May 2014

Portfolio:	Policy and Resources
Subject:	**Daedalus Innovation Centre - Provision of Solar Panels on Roof**
Report of:	Director of Finance and Resources
Strategy/Policy:	Asset Management Plan
Corporate Objective:	A dynamic, prudent, progressive and best value Council

Purpose:
The purpose of this report is to seek agreement to the installation of solar photovoltaic (PV) panels to the Daedalus Innovation Centre, with a view to maximising the return on the investment in this facility, saving electricity costs and reducing the Council's carbon footprint.

Executive summary:
In 2011, the Executive approved funds to be used for installing solar panels on Council buildings. This report identifies an opportunity to install solar photovoltaic (PV) panels to the roof of the Daedalus Innovation Centre. If this opportunity is pursued, the electricity generated from the PV panels would be free, the Council would benefit from Feed In Tariff (FITs) payments, and there would also be a payment for unused electricity exported back to the National Grid. This would also contribute to a reduction in the Council's carbon emissions that would otherwise arise.

The recommended solution would require an initial investment of approximately £60,000, and give rise to an effective Return on Investment of 13%, and the cost of installation would be repaid within 7 years.

Recommendation:

a) That the Executive agrees to install PV panels on the roof of the Daedalus Innovation Centre;
b) That the total cost of this is met from the Council's Capital Fund Reserves, and;
c) Approves the procurement of PV panels from an approved installer through the Design and Build contract for the construction of the Innovation Centre.

Reason:
The proposal will be a sound financial investment in that it will produce income through the Feed-in tariffs and save on electricity costs which will benefit the Council's investment in the Innovation Centre. It will also contribute to the corporate priority to provide leadership to residents and businesses to reduce energy usage, conserve natural resources and save money.

Cost of proposals:
The total capital cost of the proposals is estimated to be £60k, assuming that PV panels are fitted on the main roof and the western "finger" roof. The cost would be offset by an estimated initial energy bill saving/feed in tariff income of £7 - 8k pa.

Appendices: **A:** Image of Daedalus Innovation Centre

Background papers:

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Executive Briefing Paper

Date: 12 May 2014

Subject: Daedalus Innovation Centre - Provision of Solar Panels on Roof

Briefing by: Director of Finance and Resources

Portfolio: Policy and Resources

INTRODUCTION

1. This report sets out a proposal for the installation of solar photovoltaic (PV) panels on the roof of the Daedalus Innovation Centre. The Innovation Centre which was granted planning consent in March will stimulate new business start-ups and see further growth of the Solent Enterprise Zone at Daedalus. In line with the overall objectives of the Enterprise Zone, the centre will be targeted at businesses in the advanced engineering sector including aerospace, aviation and marine industries, although the Council recognises that it would be prudent not to restrict it exclusively to these sectors to ensure full occupancy. Whilst the primary purpose of the Centre will be to encourage new business start-ups and help to support such businesses to survive and grow, existing businesses would not necessarily be excluded. Construction work is due to start at the end of May 2014, with completion due in March 2015. An image of the Innovation Centre is attached as Appendix A.

2. PV panels work by converting solar radiation into electricity. Installations need to be in south facing, unshaded locations. The weather does not have to be sunny, although more energy is produced when the sun shines directly onto the cells. The electricity produced cannot be stored and is either used as it is generated or is fed back into the National Grid. Its position close to the south coast makes Fareham one of the better places in the country to benefit from PV panels.

3. PV panel technology has been around for some considerable time, but the savings in electricity costs have been outweighed by the costs of installation resulting in lengthy payback periods. However, in recent years, installation costs have come down, the technology has become more efficient and, most importantly, the Feed in Tariffs (FITs) have been introduced.

4. Following a report considered by the Executive on 16 May 2011 PV panels been installed on the roof of the Council's Depot and the Sheltered Housing Schemes at Barnfield Court and Downing Court.

PROPOSAL

5. Initially, the proposals submitted by the Design and Build contractor for the Innovation Centre included a total of 30m² of PV panels on the main roof. However, the roof is capable of taking considerably more than this and two further options are being considered. Option 1 uses both the whole of the main roof and the western "finger" roof and Option 2 uses just the main roof.

6. Option 1 (main roof and the western "finger" roof) has a 41kWp capacity and is estimated to cost approximately £60k. Option 2 (The main roof) has a 36kWp capacity and is estimated to cost approximately £55k.

7. The quotations have been produced from a desk top survey of the site by an approved installer and it is likely that a final on site assessment, including discussion with the building contractor, may lead to a slightly different design solution. The quotation however, is a very useful guide to potential capacity, cost and return and will assist the procurement of the panels if the Executive approve this initiative.

8. The proposal is based on the installation of high quality modules and a balance of system with a long design life and excellent warranties.

9. The chosen solar PV system would be eligible for the Governments Feed–in-Tariff scheme (FiT). The rate of FiT the Council will receive will depend on the system size and date of final commissioning. Option 1 assumes that the combination of energy savings and FiT payments will total around £7k, whilst for option 2 this figure will be around £6k. Both represent an annual return on investment of over 13%. A summary of the proposal is as follows;

Option	Size	kWh	kgCO2/yr	Cost/kWp	Total Cost ex VAT	ROI	Assumed install date
1	41.00 kWp	36,777	19,455	£1,460	£59,855	13.60%	June
2	36.00 kWp	32,292	17,082	£1,487	£53,534	13.35%	June

RISK ASSESSMENT

10. The principal risk is that the Government changes the rules concerning FiTs payments and applies them retrospectively or that the current level of FiT reduces prior to the PV panels being installed.

FINANCIAL IMPLICATIONS

11. Following a report considered by the Executive on 5 September 2011, Members agreed a budget of £250,000 to fund the original PV panel's scheme. At that time the decision was to install panels on the Civic Offices, Depot and sheltered housing schemes at Downing Court and Barnfield Court. However, the PV panels were unable to be fitted to the Civic Offices due to safety issues resulting in a saving of £160,000 which was transferred back to the capital fund reserves. The proposal is to allocate £60,000 from this saving to fund the PV panels at the Innovation Centre.

PLANNING ISSUES

12. The installation of PV Panels on the roof of the Daedalus Innovation Centre will require planning consent. The current planning consent includes the provision of a lower amount of PV panels than that being proposed so an amendment will be required.

PROCUREMENT

13. The Council currently has a Design and Build contract with Leadbitter for the Innovation Centre and building works are due to commence in May 2014. There are two possible procurement routes for the installation of PV panels. One is that the Council seeks tenders directly from approved installers and enters into an arrangement with Leadbitter to arrange for the work to be carried out. Alternatively, it may be treated as a variation to the main Design and Build contract, requiring the contractor to undertake an exercise to procure the work from an approved installer. These options will be further pursued and officers will select the most advantageous route.

CONCLUSION

14. The current FITs payments regime provides an ideal opportunity for the Council to install renewable energy technology on its buildings in a way which makes an attractive financial investment. This will both save money for the Council, reduce its carbon footprint and make a statement concerning its leadership on "green" issues. It is recommended therefore that the Council proceeds with the commissioning of the installation of PV Panels on the roof of the Daedalus Innovation Centre, at an estimated cost of £60k, assuming that PV panels are fitted on the main roof and the western “finger” roof.

Reference Papers: