

**HAMPSHIRE COUNTY COUNCIL****Decision Report**

<b>Decision Maker:</b>	Cabinet
<b>Date:</b>	24 October 2011
<b>Title:</b>	Solar Photovoltaic Programme
<b>Reference:</b>	3190
<b>Report From:</b>	Director of Culture, Communities and Business Services

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## 1. Executive Summary

1.1. The purpose of this paper is to update Cabinet on the progress made to date on the procurement of a large scale solar photovoltaic (PV) programme across the County Council's corporate buildings and seek approval to let a first phase project to be completed by the end of March 2012, subject to Full Council adding the funding to the Capital Programme in November 2011.

1.2. This report seeks to:

- Explain the procurement programme to optimise the Feed in Tariffs
- Outline the timescales for the procurement, design and delivery process
- Recommend to Full Council in November 2011 that the funding for Phase 1 is added to the 2011/2012 Policy & Resources Capital Programme
- Propose an approach to future phases of installation which will be subject to future announcements by Government on Feed In Tariffs from April 2012 and a review of the Business Case
- Recommend that advance detailed design work is commissioned from the successful tenderers in advance of approval to capital funding at Full Council in order to maximise installations by March 2012
- Obtain approval to proceed with a small scale pilot project.

## 2. Contextual information

2.1. In June 2011 Cabinet gave approval for the Director of Culture, Communities and Business Services to progress the procurement of the first phase of the large scale solar PV programme. This followed the completion of a Business Case demonstrating the positive return in investment to the Council.

- 2.2. A study of corporate buildings identified a potential 31,000 square metres of unutilised roof area across the County Council's non-schools estate which could be suitable for the installation of solar PV. A further refinement of this study by a solar PV specialist surveying company confirmed this data and further informed the business case.
- 2.3. Following Cabinet approval in June 2011, detailed work has focused on the first phase of 25% of the total potential installation. It is proposed this will consist of around 60 sites and is estimated to cost up to £3.5 million (including fees). Given the necessity to complete and register all installations by the end of March 2012, it is proposed to manage the final total of installations within the funding envelope in response to the contractor's detailed proposals. This is not expected to affect the return on investment as it will be proportionate to the area of arrays installed.

### **3. Future Phases**

- 3.1. A Government review of Feed in Tariffs (FITs) from April 2012 onwards for Solar PV and other renewable energies is underway. The results are not expected before the Council must commit to funding Phase 1 and letting contracts. It is therefore recommended that we wait until confirmation of revised tariffs are announced before proceeding with further design and procurement work on future phases. Indications are that FITs will reduce and so it will require a review of the Business Case to test the financial returns.

### **4. Procurement of Phase 1**

- 4.1. It was stated at Cabinet in June, that procurement of the wider programme of installations will be through a phased roll out of solar PV arrays to be installed on suitable roofs across the County Council's corporate buildings commencing with projects at the start of 2012.
- 4.2. Since June, a national framework for the Provision of Micro-Generation Technologies (including PV) has been let by the Yorkshire Purchasing Organisation (YPO) on behalf of the PRO-5 Consortia. Hampshire is a member of the PRO-5 collaboration and can take advantage of this framework arrangement. Using a pre-existing, OJEU compliant, framework will reduce the costs to the Council of the procurement process. Contractors are programmed to be selected at the beginning of November.
- 4.3. Through the Partnership arrangements Property Services has with Surrey County Council and Reading Borough Council, a parallel procurement exercise is being undertaken by the Authorities using the same framework. This will deliver economies of scale for the industry and maximise the potential for competitive tenders being received. Separate contracts will be let with each Authority so there is separation of responsibility in the delivery phase.
- 4.4. Contracts will be let on a Design and Build basis so the contractors will take full responsibility for verifying the survey and data information provided. They will also be required to complete the registration of the installations to comply

with FIT rules and final payment will be dependent on this. This will incentivise the contractors to resource and deliver the programme within the required timescales.

- 4.5. The procurement is being divided into a number of Lots within the first phase to ensure there is sufficient capacity to deliver within the timescale and build in flexibility to manage the project. A Design and Programme Office has been established in Property Services to deliver the programme and manage the contractors' installations.
- 4.6. Around 60 sites have been identified for inclusion in Phase 1. All of these sites will have installations no greater than 50 kilowatts and will, therefore, qualify for the greatest FIT. This will maximise the financial returns to the Council for this Phase.
- 4.7. A wide range of corporate buildings are included in the first phase programme and will benefit from the grid energy savings which result. Sites include Adult Services homes, education study centres, offices, depots, libraries and other recreation portfolio buildings.

## **5. Programme for Delivery of Phase 1**

- 5.1. There are a number of time constraints which impact on the proposed large scale PV project, not least of which is the potential for a reduction in the published FIT rate for 2012/13.
- 5.2. A further constraint is the capacity of the industry to deliver this scale of programme in the timescale required to take advantage of the FITs currently available before 1 April 2012.
- 5.3. In addition, the time necessary to arrange detailed surveys for each site, mobilisation of the contractor's workforce and the lead-in time required for the manufacture and supply of the panels and associated equipment will mean that the programme required for the first phase of the works will have, and has already required, a number of key activities to be undertaken.
- 5.4. The key activities include:
  - Conducting a mini competition for the selection of the specialist contractors from the YPO framework
  - Assembling all of the associated data for each building in the programme e.g. asbestos information, roof structure details, etc.
  - Obtaining the necessary permissions (including Planning) for each site where this is appropriate
  - Further detailed survey and design undertaken by the contractor for each site/building
  - Installation of the panels on sites in a managed programme using a number of contractors
  - Registration of the installation to receive the Feed In Tariffs.

- 5.5. In order to achieve the timescales set down below it has been necessary to commit officer time in advance of the approval of the programme at the County Council meeting in November in order to assemble and collate all of the information for each building in the programme.
- 5.6. Further, it is also essential that each of the successful contractors are engaged to commence their detailed survey and design works as soon as possible after the completion of the selection process. Again, it is anticipated that this process must commence before funding approval is obtained in November but after consideration of this report by Cabinet in October.
- 5.7. It is estimated that the internal cost of officer time of carrying out the procurement phase is in the order of £50,000, whilst the cost of engaging the contractors to undertake their detailed surveys and design is estimated to be up to £150,000.
- 5.8. The following are key milestone dates to approve, design and deliver the programme:
  - Cabinet considers approval to Phase 1 project: 24 October 2011
  - Complete contractor procurement and selection: End of October 2011
  - Order placed with contractors for pre-construction work, including survey validation and detailed design – beginning November
  - Full Council considers addition to the Capital Programme for Phase 1 only: 24 November 2011
  - Contractors' detailed survey and design work: Complete mid-December 2011
  - Orders placed with contractors for installation works: Beginning December 2011
  - Managed programme of installation and registration: January to March 2012.

## **6. Finance**

- 6.1. The business case that was presented in June 2011 was on a full scheme capital cost of just over £14 million and average assumptions about the level of Feed in Tariff (FiT) each scheme would attract and the savings in energy that would be achieved.
- 6.2. As part of this first phase of Solar PV installations, the financial model has been updated in particular to reflect more accurate assessments of which FiT rates will apply to the schemes that will be included in phase 1 together with a more accurate assessment of the likely energy savings resulting from the installations.
- 6.3. It has also been assumed that the initial up front capital investment will be met from prudential borrowing and that the financing costs of this will be funded from the FiT income and energy savings.

- 6.4. On a simple cashflow basis, phase 1 of this scheme is expected to pay back the initial investment by year 9 which is significantly below the projections in the original business case which assumed a 15 year payback.
- 6.5. A summary of the financial model is provided at Appendix 1, based on prudential borrowing of £3.1 million over 25 years. This report seeks to add up to £3.5 million to the capital programme to allow some flexibility for price changes prior to receiving the outcome of the current procurement process. Even at this level of capital expenditure it does not significantly change the basic business case.
- 6.6. It should also be noted that the cash flows allow for de-installation costs at the end of the 26 years of £1.5 million, which will need to be added to the capital programme at the time depending on the quality and operational efficiency of the equipment.
- 6.7. The financial model for the prudential borrowing option shows that an average net revenue contribution of £230,000 per annum is produced after taking into account financing costs, the ongoing costs of maintenance, inverter replacement and a re-roofing provision, which have all been smoothed over the life of the programme. This provides an internal rate of return against the initial investment of 6.35% and an overall net present value £2.74 million, both of which indicate a strong financial justification for the investment programme.

## **7. Proposed Pilot Project**

- 7.1. In order to minimise the risks associated with the programme of works and to inform our understanding of the detailed design and installation process it is proposed to run a pilot project on a single building. The pilot project will be run concurrently with the contractor selection/ design stages. The YPO Framework allows for a direct procurement of such works.
- 7.2. The outcome of the pilot will be fed back into the large scale procurement activity to inform the survey, design and installation process and to give a greater understanding of the lead-in and installation timescales so reducing the risks to the County Council.
- 7.3. It is anticipated that the cost of the pilot project will not exceed £50,000 in value, the exact cost of the installation will depend on the site chosen for the pilot scheme. It is proposed to fund the pilot from the existing Policy and Resources Landlord Programme and reimburse it from the future PV funds. Other works to this value will be deferred into 2012/13 in the short term.

## **8. Risks**

- 8.1. Level of FITs post-April 2012: As Phase 1 will be delivered by the end of March 2012 and no further phases will proceed until the revised FITs are announced, this risk will be eliminated.

- 8.2. Industry Capacity: Assessments have been made of the capacity of the industry to deliver the first phase and the programme will be through a number of contractors from the framework to avoid placing all the risk with one supplier. However, there will be a number of public and private sector clients letting contracts to take advantage of the certain FiTs this financial year and the impact this could have on the Council's programme is unknown until later in the delivery process.
- 8.3. Condition of Existing Structures: A significant amount of survey work and data has been collected for all the sites in Phase 1. There is always a risk that more invasive survey work by the contractor could identify unforeseen technical issues. This risk is being anticipated by including around 60 locations in the project, thus spreading the risk of local problems having a wider impact.
- 8.4. Weather: Inevitably installing the roof panels in the winter season has greater risk of disruption than other periods of the year due to adverse weather. The strategy recommended in this report to issue advance design orders to the successful installers maximises the programme window before the end of March 2012.

## **9. Recommendations**

- 9.1. That the Director of Culture, Communities and Business Services be authorised to:
  - a) Continue with the procurement of the first phase of the Solar PV Programme to complete the contractor selection process at an estimated cost of £50,000 of officer resource.
  - b) Engage the selected contractors to undertake the detailed survey and design stages of the large scale programme in advance of the funding being approved at Full Council on 24 November 2011 to a maximum value of £150,000.
  - c) Proceed with an early pilot project and let a contract before the formal addition of funding to the Capital Programme up to a value of £50,000. This can be initially funded from within existing Policy and Resources Capital and would be reimbursed subject to Full Council approval of the programme.
- 9.2. That Cabinet recommends to County Council that £3.5 million be added to the 2011/2012 Policy and Resources Capital Programme to design and deliver the first phase of the programme by the end of March 2012.
- 9.3. That Cabinet recommends to Council that the initial capital investment of £3.5 million is funded from prudential borrowing and that the revenue impact of the programme is reflected in the budget forecast from 2012/13 onwards.
- 9.4. Future phases of the programme are not progressed until the Government review of Feed In Tariffs for renewable energies are announced and the impact on the Business Case reviewed.

**CORPORATE OR LEGAL INFORMATION:****Links to the Corporate Strategy**

<b>Hampshire safer and more secure for all:</b>	Yes
Corporate Improvement plan link number (if appropriate):	
<b>Maximising well-being:</b>	Yes
Corporate Improvement plan link number (if appropriate):	
<b>Enhancing our quality of place:</b>	Yes
Corporate Improvement plan link number (if appropriate):	

**Other Significant Links**

<b>Links to previous Member decisions:</b>		
<u>Title</u>	<u>Reference</u>	<u>Date</u>
Carbon Strategy	1152	26.07.2010
Authority to procure Solar Photovoltaic panels for roofs on Hampshire County Council buildings	3014	27.06.2011
<b>Direct links to specific legislation or Government Directives</b>		
<u>Title</u>	<u>Date</u>	

**Section 100 D - Local Government Act 1972 - background documents**

The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)

<u>Document</u>	<u>Location</u>
None	

## **IMPACT ASSESSMENTS:**

### **1. Equalities Impact Assessment:**

1.1. No impact.

### **2. Impact on Crime and Disorder:**

2.1. No impact.

### **3. Climate Change:**

- a) How does what is being proposed impact on our carbon footprint / energy consumption?

The proposal for Phase 1 of the programme will reduce the County Council's carbon footprint by an estimated 400 tonnes per annum over the 26 year life of the installation – a total of 10,400 tonnes.

- b) How does what is being proposed consider the need to adapt to climate change and be resilient to its longer term impact.

Local generation of electricity would provide resilience of supply should there be an interruption of the mains supply as a result of extreme weather or other causes.