

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

<b>Decision Maker:</b>	Cabinet
<b>Date of Decision:</b>	19 December 2011
<b>Decision Title:</b>	Solar photovoltaic (PV) Panels – Review of Programme
<b>Decision Reference:</b>	3502
<b>Report From:</b>	Director of Culture, Communities and Business Services

**Contact name:** Steve Clow

**Tel:** 01962 847858

**Email:** steve.clow@hants.gov.uk

## 1. Executive Summary

1.1. The purpose of this report is to update Cabinet on the work completed to date on the procurement of the large scale Solar photovoltaic (PV) Panels Programme and the review of the programme following a major reduction in the Feed in Tariffs recently announced by the Government.

1.2. This report seeks to:

- set out the background to the project
- consider the impact on the business case of the reductions in Feed In Tariffs
- consider the impact to the programme of the revised central Government deadline for registration of solar PV systems
- obtain authority for the Director of Culture, Communities and Business Services (CCBS) to suspend the current programme
- obtain authority for the Director of Culture, Communities and Business Services (CCBS) to keep the business case under review in future.

## 2. Contextual information

- 2.1. In early 2011 the Directors of Economy, Transport and Environment (ETE) and Culture, Communities and Business Services (CCBS) developed an Outline Business Case for the deployment of large scale roof mounted solar PV panels across the County Council's Corporate estate.
- 2.2. On 27 June 2011, Cabinet approved the procurement of a first phase programme of works up to the point where contracts would be formed with the successful bidders.
- 2.3. Cabinet approved further expenditure on 24 October for both a pilot PV scheme, detailed survey and design work to be undertaken by the successful bidders and staff resource to take the procurement to the installation phase.

- 2.4. The proposal for capital funding for the programme of works, at a total cost of £3.5 million, was to be put before Full Council on 24 November.
- 2.5. On 31 October the Government announced a consultation on Feed in Tariffs (FiT) in relation to Solar PV installations. The proposal is to significantly reduce the tariff by around 50% from 1 April 2012 and that any installation registered after 12 December 2011 would be locked into this lower FiT rate. This proposal brings forward the date for the reduction, which was expected to be after 1 April 2012.
- 2.6. This has a significant impact on the County Council's business case that is currently based on the income from Feed in Tariffs remaining unchanged at the highest rate until the end of March 2012, as none of the County Council's installations were planned to be installed by the recently imposed earlier deadline.

Array Size kWp	Current Feed In Tariff Rate until 31/03/12 Registration by 12/12/11 (Pence/kWh)	Proposed Feed In Tariff Rate from 1st April 2012 or Registration after 13/12/11 (Pence/kWh)
Less than 4kWp (retrofit)	43.3	21.0
Between 4kWp to 10kWp	37.8	16.8
Between 10kWp to 50kWp	32.9	15.2
Above 50kWp	19.0	12.9

- 2.7. A review of the business case has been undertaken to investigate what options are available to the Council.
- 2.8. Though the procurement process is well advanced contracts had not been let on any of the County Council's projects and therefore, there is currently no financial commitment made to contractors and the procurement process has been halted pending the outcome of the review.

### 3. Finance

- 3.1. The review of the business case examined the following;
- The effect of the reduced FiT on the whole of the first phase of the programme in terms of the Internal Rate of Return (IRR)
  - The most suitable buildings available in terms of rate of the IRR
  - The effect on the IRR of installing systems which attracted only the highest FiTs, i.e. system less than 10kWp output
  - How many of Hampshire's most suitable buildings would be needed to provide an acceptable IRR for each FiT band
  - By how much would the installed cost have to reduce to provide an IRR equivalent to the original business case.

3.2. Modelling each of the scenarios above gave the following outcomes;

- The proposed new FiT when applied to the whole of the phase 1 programme:
  - Doubles the simple payback period from 9 to 18 years
  - Doubles the discounted payback from 13 years to in excess of 26 years (greater than the lifetime of the installation)
  - Changes the Net Present Value (NPV) from a positive value of £1.9m to a negative value of £700,000.
  - Changes the IRR from +5.57% to -2.68%.
- Using only the best roofs still does not produce a positive NPV or IRR
- Using the best roof with the smaller arrays to attract the most advantageous FiT still does not produce positive IRR or NPV
- To achieve a 'break even' position in respect to IRR (0%) and NPV (£0) the County Council would need to install arrays on four times as many 'best' roofs. There are not the number of these roofs in the corporate estate to achieve this.
- The installed cost would have to reduce by 40% to achieve a 'break even' (0%) IRR and by 80% to achieve an IRR of 5% (in line with the overall building cost).

#### **4. Performance**

4.1. The proposed reduction in the FiT has a profound effect on the business case for the solar PV programme as it was originally envisaged.

4.2. Based on the parameters set out in the business case model the proposed new FiTs do not produce a positive IRR or NPV for even the most advantageous array size on buildings with the optimum orientation and roof pitch.

4.3. The installed cost would have to be reduced substantially (by 40%) to produce a 0% IRR and by 80% to give an IRR of 5% and whilst some analysts are anticipating a drop in the costs of panels after the 12 December 2011 it is unlikely that they will fall to these levels in the foreseeable future.

4.4. It is currently unclear how the market will be affected post the 12 December deadline for registration. The market may react to the drop in demand by reducing the installed costs to stimulate activity or it may contract. Initial discussions with solar PV suppliers indicate there will be a drop in the installed costs, but to what extent is still unclear.

#### **5. Future direction**

5.1. At some point in the future solar PV may serve part of the portfolio of solutions on offer to help the Council reduce its fossil fuel energy consumption, mitigate against the rise in the cost of energy and reduce its

carbon footprint, but at the present time with the current installation costs and the proposed level of FiT the business case does not justify any investment.

- 5.2. However, it is unclear how the market will react post 12 December 2011 and it would be appropriate to re-examine the viability of the programme when the market has stabilised and as the technology improves to become more efficient.

## **6. Recommendations**

### **6.1. That the Director of Culture, Communities and Business Services be authorised to:**

- a) suspend the current solar PV panel programme.
- b) keep the business case under review in the future, and monitor technological advances and installation costs in the PV industry.

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

<b>Hampshire safer and more secure for all:</b>	N/A
Corporate Improvement plan link number (if appropriate):	
<b>Maximising well-being:</b>	N/A
Corporate Improvement plan link number (if appropriate):	
<b>Enhancing our quality of place:</b>	N/A
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>
Solar Photovoltaic Programme	3190	24.10.11
Solar photovoltaic	3014	27.06.11
Carbon Strategy	1152	26.07.2010
<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. An Equalities Impact Assessment is not applicable to this report.

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

2.1. The County Council has a legal obligation under Section 17 of the Crime and Disorder Act 1998 to consider the impact of all the decisions it makes on the prevention of crime. The proposals in this report will have no impact on the prevention of crime.

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

3.1. The County Council will be unable to achieve the carbon reduction originally proposed as a result of suspending the programme following significant changes to the Feed in Tariffs by the Government.