

# Forest Heath District Council

(This report is not a key decision. This report has been subject to appropriate notice of publication under the Council's Access to Information Rules)

## Report of the Cabinet Member for Environment and Waste

**CABINET**

**25 JUNE 2013**

**CAB13/096**

**GENERATING INCOME FROM RENEWABLE ENERGY - PROGRESS** (Key Decision Reference: MAY13/05)

### **1. Summary and reasons for recommendation**

- 1.1 Forest Heath District Council has been developing new ways of improving business efficiency and generating income through investment in renewable energy generation eligible for the Clean Energy Cashback.
- 1.2 The Council is also committed to cutting Carbon Dioxide (CO<sub>2</sub>) emissions arising from heating and powering public buildings under their control.
- 1.3 This report gives an update on investment by the Council in solar photovoltaic (PV) systems which were installed during Winter 2011/12. Based on their first year performance, the PV systems appear on track to meet the return on investment and CO<sub>2</sub> savings on which the business case was based.
- 1.4 Further opportunities to invest in renewable energy technologies to deliver energy and CO<sub>2</sub> savings will be identified and proposals submitted for Cabinet approval as they arise.

### **2. Recommendation**

#### **2.1 Cabinet to note the contents of the report.**

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### **3. How will the recommendations help us meet our strategic priorities?**

3.1 This report gives a progress report on the Council's investment in solar PV technology.

### **4. Key Issues**

4.1 Forest Heath District Council made a capital investment in 2011 in solar photovoltaics (Solar PV) on its corporate property to cut energy use and carbon emissions and take benefit from income from Feed-in Tariffs (FITs). FITs were introduced in April 2010 to encourage uptake of small scale renewables. The FIT guarantees the owner a fixed income for each unit of electricity produced and helps make Solar PV a cost effective option in the longer term.

4.2 The original business plan indicated that an investment return (IRR) of around 5% could be realised. Although not directly equivalent to a bank interest rate, this rate of return compared favourably with other investments that the Council was currently achieving including equity-based capital investment. In addition, the FIT is guaranteed for the next 25 years.

4.3 Despite a hiatus and subsequent restructuring of the tariff by the Government in November 2011, PV systems were fitted to four FHDC properties comprising College Heath Road Offices, Newmarket and Brandon leisure centres and Mildenhall Depot.

4.4 All the systems were fitted and commissioned before the end of March 2012 thereby qualifying for the higher level of tariff.

4.5 The systems have been in operation for just over a year. A summary of the investment and Year 1 return, based on metered data, is presented below. The installations appear on track to meet the predicted performance set out in the original business case.

Installed generating capacity	185kWp
Gross capital cost	£435,562
Capital cost (after deduction for partner contributions)	£435,562
Projected income from Feed-In Tariff	£52,135
Projected value of energy saving	£12,147
Gross income	£64,282
Net income (after partner deductions)	£57,092
Payback	7.6 years
Internal Rate of Return	11.9%
Loss of interest (Year 1) at 2.5%	£10,889
CO <sub>2</sub> savings	83 tonnes

4.6 The market has changed significantly since 2011 with installation prices for solar PV mirroring the cut in the Feed-in Tariff. New financial mechanisms, including the Renewable Heat Incentive (RHI) for heat generation, are available and will support technologies such as biomass-based (e.g. wood) heating. Therefore, further opportunities may arise for the Council in which to invest in renewable energy in the future.

### **5. Other options considered**

5.1 Not relevant.

**6. Community Impact**

**6.1 Crime and Disorder Impact** *(including Section 17 of the Crime and Disorder Act 1998)*

6.1.1 There are no implications arising from the recommendations within this report.

**6.2 Diversity and Equality Impact** *(including the findings of the Equality Impact Assessment)*

6.2.1 The original proposals for investing in renewable energy have been subjected to an Equality Impact Assessment, the findings of which were incorporated into the original business cases on which the investment was based.

**6.3 Sustainability Impact** *(including completing a Sustainability Impact Assessment)*

6.3.1 The original proposals for investing in renewable energy were subjected to Sustainability Impact Assessment, the findings of which were incorporated into the original business cases on which the investment was based.

6.3.2 One issue of note is that renewable energy generation does not deliver the same level of energy or carbon savings that simple energy efficiency measures achieve for each pound invested. This could be addressed by re-investing a percentage of surplus income in energy saving measures after repaying capital.

**6.4 Other Impact** *(any other impacts affecting this report)*

6.4.1 None

**7. Consultation** *(what consultation has been undertaken, and what were the outcomes?)*

7.1 The recommendations have been subject to internal discussions.

**8. Financial and resource implications** *(including asset management implications)*

8.1 The level of return shown by the investment is predicted to continue so that invested capital should be replenished with a payback in the region of 11 years against a 25 year tariff contract.

**9. Risk/Opportunity Assessment** *(potential hazards or opportunities affecting corporate, service or project objectives)*

9.1

Risk area	Inherent level of risk (before controls)	Controls	Residual risk (after controls)
Failure to achieve the predicted performance over the long term.	Moderate	Warranties for key components were included in the procurement phase to ensure that any replacement costs will be kept within the financial modelling. The systems will be monitored to evaluate on-going performance.	Low

9.2 Future opportunities may arise to invest in renewable energy generation both in existing properties and new developments, for example the proposed Mildenhall Hub. Incorporating low and zero carbon energy generation will reduce the

demand for and reliance upon fossil fuel energy, which is likely to become more price volatile and less secure.

## **10. Legal and policy implications**

10.1 Local authorities are being encouraged by the Coalition Government to take advantage of the Clean Energy Cashback as shown by the change in the rules on selling energy and the Scheme's endorsement given in the Spending Review in October 2010.

10.2 The investment supports the Council's corporate priorities and responds to the demand to increase income generation in a sustainable manner.

## **11. Wards affected**

11.1 All wards in West Suffolk.

## **12. Background papers**

12.1 None

### **Glossary of terms used in this report**

**Clean Energy Cash Back:** A scheme introduced by the UK Government, funded either by energy supply Companies (Feed-In Tariff) or the Government (Renewable Heat Incentive), where payments are made to produce energy from different forms of renewable and low carbon sources such as solar, wind, water and biomass.

**Feed-in Tariff (FIT)** - a system of payments to renewable/low carbon electricity generators.

**Internal Rate of Return On Investment** – an indicator of the net benefits expected from a project over its lifetime, expressed as a percentage comparable to the interest rates.

**kWp:** A Kilowatt Peak, the design generating capacity of a particular installation.

**Lifetime CO2 savings** – the amount of CO2 which would have been generated by burning fossil fuels for the same amount of energy generated by a non-fossil energy source.

**Payback** – the length of time required to recover the cost of an investment.

**Renewable Heat Incentive (RHI)** – a system of payments to renewable/low carbon heat generators

**Solar PV** or **PV** – photovoltaics, panels which can be attach to a roof, walls or floor mounted frame and generate electricity by converting sunlight.