

<b>Report of:</b>	<b>Head of Housing and Waste Management</b>
<b>Contact Officer:</b>	<b>Ian Tennant/ Rick Pepper</b>
<b>Telephone No:</b>	<b>01543 464210/ 01543 466803</b>
<b>Portfolio Leader:</b>	<b>Housing</b>
<b>Key Decision:</b>	<b>No</b>
<b>Report Track:</b>	<b>HPDC 20/1/2014</b>

**HOUSING POLICY DEVELOPMENT COMMITTEE****20 JANUARY 2014****NORTON CANES PHOTOVOLTAIC PANEL PILOT SCHEME – FURTHER EVALUATION****1 Purpose of Report**

- 1.1 To consider a further evaluation of the Norton Canes Photovoltaic (PV) Panel Pilot Scheme.

**2 Recommendations**

- 2.1 That the results of the further evaluation of the Norton Canes Photovoltaic (PV) Panel Pilot Scheme are noted.

**3 Key Issues and Reasons for Recommendation**

- 3.1 A Photovoltaic (PV) Panel Pilot Scheme undertaken by Strategic Energy Limited to 39 Council owned bungalows in the Jerome Road/Jerome Drive/Yew Tree Close and High Street areas of Norton Canes was completed in April 2012.
- 3.2 Following consideration of the preliminary evaluation results by the Housing Policy Development Committee on 21 January 2013, a further evaluation has been made, the results of which are detailed in the report.
- 3.3 65% of tenants report a saving in electricity costs, with five tenants reporting that their bill had decreased by at least half. A detailed evaluation of electricity use in respect of three properties suggests that their electricity purchases have decreased by approximately 30%, with a consequent annual estimated cost saving of at least £72 per annum.
- 3.4 The reduction in “feed in tariffs” (which subsidise the installation of PV panels) has contracted the “PV energy provider market” as the majority of former

providers do not consider such installations to be an economic proposition. An additional alternative form of subsidy could, however, ensure a “return” on a reduced level of investment.

- 3.5 The Council are therefore exploring (as part of the Greater Birmingham and Solihull LEP) the potential future use of European Regional Development Funding (ERDF) during the period 2014 to 2020 to provide the required subsidy. ERDF funding criteria and in particular issues regarding “state aid in relation to renewables which earn tariffs” may, however, mean that the proposal is ineligible.
- 3.6 Preliminary discussions have also been held with Staffordshire Community Energy (SSCE) regarding the possible provision of PV panels to further Council properties through a community share issue. Representatives of SSCE are due to present an outline proposal to provide PV panels to some 250-300 Council properties at the Housing Policy Development Committee on 20 January 2014. Details of their proposal and presentation will be considered as a separate item, following consideration of this report.

#### **4 Relationship to Corporate Priorities**

- 4.1 The potential provision of PV panels to further dwellings within the Council’s housing stock is a key action within the Housing Portfolio section of the agreed 2013-14 “Place” Priority Delivery Plan.

#### **5 Report Detail**

##### **The Photovoltaic Pilot Scheme**

- 5.1 A pilot scheme to provide Photovoltaic (PV) Panels to 39 Council owned bungalows in the Jerome Road/Jerome Drive/Yew Tree Close and High Street areas of Norton Canes was completed in April 2012.
- 5.2 The pilot scheme was undertaken by Strategic Energy Limited and is based on them leasing the external roof space of the bungalows for 25 years and funding the installation and maintenance of the PV panels. The cost of providing the panels is then met through the sale of electricity to the National Grid and a “Feed in Tariff” from the Department for Energy and Climate Change.
- 5.3 Whilst the Council do not receive any income from the lease of the “roof space”, bungalow tenants receive some “free” electricity and carbon emissions are reduced.
- 5.4 A further aim of the pilot scheme is to enable the Council to evaluate the potential benefits and risks of providing PV panels, prior to consideration of extending their provision to further dwellings within the housing stock.

### Preliminary Evaluation of the Pilot Scheme

- 5.5 The Housing Policy Development Committee on 21 January 2014 considered the results of an initial evaluation of the pilot scheme.
- 5.6 Whilst the initial results (in terms of electricity savings for tenants) were encouraging, these related to extrapolated information (for a 12 month period) based on electricity generation and usage during the summer and autumn. During this period most electricity is generated from the PV panels, whilst electricity usage by tenants is generally lower.
- 5.7 As a result, it was considered that the preliminary evaluation results needed to be “treated with caution” and the Committee agreed that the pilot scheme was subject to further evaluation including:-
- (i) Monitoring of the potential electricity cost savings in respect of the three sample pilot scheme properties for a full 12 month period.
  - (ii) A survey of all tenants whose homes are included within the pilot scheme.

### Further Evaluation of the Pilot Scheme

- 5.8 Electricity use in respect of the three sample properties has now been monitored for a full 12 month period, the results of which are set out below:-

(i) Property One

Before PV Panels	1762 kWh
After PV Panels	1227 kWh
Difference (saving)	535 kWh (30.3%)

Estimated cost saving per annum - £72.39 \*

(ii) Property Two

Before PV Panels	3952 kWh
After PV Panels	2335 kWh
Difference (saving)	1617 kWh (41%)

Estimated cost saving per annum - £218.78 \*

(iii) Property Three

Before PV Panels	2057 kWh
After PV Panels	1410 kWh
Difference (saving)	647 kWh (31.5%)

Estimated cost saving per annum - £87.54 \*

Note: \* Based on 13.53p/kWh (British Gas standard price per kWh in the Cannock area).

- 5.9 When compared to the results of the preliminary evaluation the reduction in electricity usage is generally lower but as the above results are based on a full 12 month monitoring period they provide more accurate information on the reductions which have been made. As a result of this reduction estimated electricity cost savings of at least £72.39 per annum have been made.
- 5.10 The 39 tenants within the pilot scheme have also been surveyed to ascertain their views and responses from 29 tenants have been received. Of these:-
- (i) 12 (41%) had noted a small saving on their electricity bill;
- and
- (ii) 7 (24%) had noted a large saving (with 5 stating that their bill had decreased by over 50%).
- 5.11 The remaining 10 (34%) tenants reported that they had not noted any savings in respect of their electricity costs as a result of either:-
- (i) Having a new meter installed.
  - (ii) Receiving a quarterly bill with payment changes being assessed at the end of the year.
  - (iii) Payment through Secure Homes.
  - (iv) Recently moving into the property.
- 5.12 Based on the survey results some 65% of tenants report a saving in electricity costs, which based on the information from the three sample properties (as set out in paragraph 5.8) is likely to be in the region of 30%.

### **The Potential Installation of PV Panels to other Dwellings within the Council's Housing Stock**

- 5.13 Information from the 2009 stock condition survey suggests that PV panels could potentially be installed on some further 1,350 Council properties (25% of the housing stock). Not all properties are suitable as one side of the roof needs to be south facing to generate an economic return.
- 5.14 The estimated installation cost is £6,000 per property and whilst the cost of PV panels is reducing it is estimated that some £8.1 million would be required if PV panels were provided by the Council to all suitable properties. There is insufficient capacity within the HRA Business Plan to undertake this work for at least 10 years, if other investment priorities are to be met.
- 5.15 The Norton Canes Pilot Scheme was undertaken and funded by renewable energy company (Strategic Energy) under what is commonly termed a "rent a roof" scheme. This type of scheme has the advantage that the cost of installation and ongoing maintenance is met by the energy company, whilst the tenant of the property receives some free electricity.
- 5.16 The income generated from the sale of "the surplus" electricity to the national grid is insufficient to meet the capital cost of installing PV panels and as a result

subsidy is required. This is provided in the form of “feed in tariffs” from the Department for Energy and Climate Change.

- 5.17 Prior to December 2011, the “feed in tariff” for social housing was 43.3 pence per kilowatt hour. At this level of subsidy there was considerable competition within the “PV energy provider market”, which resulted in providers offering an “annual rent” for leasing an external Council roof space. However, following a Government review there has been a progressive and substantial reduction in the amount of “feed in tariffs”, which currently stand at 6.6 pence per kilowatt hour.
- 5.18 As a result of the reduction in “feed in tariffs”, the “PV energy provider market” has contracted substantially and the limited number of providers who remain in the market no longer offer annual roof rent.
- 5.19 Whilst the cost of providing PV panels is reducing, the majority of former “PV energy providers” do not consider it economic to install PV panels at the current “feed in tariff” levels, the economics would change if an additional form of subsidy were provided.
- 5.20 The Greater Birmingham and Solihull LEP are preparing their overarching European Structural and Investment Fund Strategy for the new programme operating between 2014-2020. The Council has submitted outline proposals regarding the use of such European funding to meet 50% of the installation cost (£3,000) of providing PV panels to the Council’s housing stock. It is considered that meeting the remaining capital cost (£3,000) would then be a viable proposition for a renewable energy company, as they would be able to generate a “return” on their reduced investment from the sale of electricity to the national grid and the limited “feed in tariffs” which continue to be available.
- 5.21 The eligibility criteria for ERDF funding is, however, both restrictive and complex with particular issues regarding “state aid in relation to renewables which earn tariffs”. As a result, there is uncertainty as to whether the Council’s outline proposals for potential PV funding would be eligible for European Structural Funds, although this matter is being further investigated.
- 5.22 Preliminary discussions have also been held with Southern Staffordshire Community Energy (SSCE) regarding the possible provision of PV panels to further Council properties, through a community share issue. Representatives of SSCE are to present an outline proposal to provide PV panels to some 250-300 Council properties at the Housing Policy Development Committee on 20 January 2014. Details of their proposal and presentation will be considered as a separate item, following consideration of this report.

## **6 Implications**

### **6.1 Financial**

The cost of installing and maintaining the PV panels in relation to the Norton Canes Pilot Scheme is met by Strategic Energy Limited.

If it is decided to provide PV panels to former dwellings, this would be the subject of a further report.

**6.2 Legal**

None

**6.3 Human Resources**

None

**6.4 Section 17 (Crime Prevention)**

None

**6.5 Human Rights Act**

None

**6.6 Data Protection**

None

**6.7 Risk Management**

A risk assessment would form part of the evaluation regarding the potential provision of PV panels to further dwellings within the Council's housing stock.

**6.8 Equality & Diversity**

An Equality Impact Assessment would form part of the evaluation regarding the potential provision of PV panels to further dwellings within the Council's housing stock.

**6.9 Best Value**

None

**7 Appendices to the Report**

None

**Previous Consideration**

Photovoltaic (Solar) Panels	Cabinet	21 July 2011
Norton Canes Photovoltaic (Solar) Panel Pilot Scheme	Cabinet	2 February 2012
Norton Canes Photovoltaic Panel Pilot	Housing Policy Development Committee	21 January 2013

Scheme – Initial  
Evaluation

**Background Papers**