

# ITEM 14 – APPENDIX I

## WAVERLEY BOROUGH COUNCIL EXECUTIVE – 7 JANUARY 2013

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### Title:

#### **FINANCIAL IMPLICATIONS OF UNDERTAKING A FURTHER SOLAR PV PANEL PROJECT**

**[Portfolio Holder: Cllr Keith Webster]  
[Wards Affected: All]**

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### Summary and purpose:

To present the financial implications and associated risks of the current options for installation of solar PV panels on Council homes and seek advice from the Executive on whether to pursue a further Solar PV Panel Project in Waverley at this time.

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### How this report relates to the Council's Corporate Priorities:

The report supports two of the Council's Corporate Priorities - Affordable Housing and Environment. Solar PV panels have the potential, along with other measures, to assist tenants with addressing rising fuel costs and reduce the CO<sup>2</sup> emissions in the Borough through increased use of renewable energy.

### Financial implications:

In 2011 a project was undertaken by Waverley Borough Council to install over 6,000 solar PV panels to 460 Council homes which were identified as being most suitable for this expenditure. Any future projects would require dedicated project management time to deliver the project outcomes. A comparison of the costs of the options proposed is included at Annexe 1.

### Legal Implications:

Tenants would be required to sign an agreement to vary their tenancy prior to the solar PV panel installation, and to agree access for the installation and maintenance of the system.

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## **Background**

1. The Corporate Overview and Scrutiny Housing Improvement Sub-Committee asked the Housing Service to explore the scope and options available for an extension of the previous installation programme for solar photovoltaic (PV) panels on Council homes. This follows the project the Council undertook in 2011, which benefited from a significant Government subsidy available at the time, when 6,000 panels were installed on 460 Council homes.

2. Based on the survey of the housing stock undertaken in 2011, there are potentially up to a further 740 properties where solar PV panel installation could be accommodated in the future.
3. To provide a clearer understanding of the financial implications and risks associated with a further installation programme, the Executive has asked for more robust financial modelling to be carried out. This takes into account the costs to the Council, the reduced Government subsidy through the Feed-in Tariff and the expected return generated by each option.

### **Current options**

4. If the Council wishes to consider a second solar PV panel project in the borough, the current options that are available are:
  - (a) Waverley Borough Council self-financing a solar PV panel project
  - (b) Community co-operative approach
  - (c) A 'rent a roof' scheme where the Council leases roof space on properties to install solar PV panels to the service provider
5. A cost comparison for each option is set out in Annexe 1.
6. **Waverley Solar PV Direct** would be a Council-run scheme, with the Council funding the installation of the panels, managing the project directly and retaining ownership and ongoing maintenance throughout the lifetime of the system.
7. This option requires significant expenditure at the start of the project to cover the purchase of solar PV panels, installation and project management costs and remains in deficit at the end of the 20-year period.
8. **Community co-operatives** have the potential to provide solar PV panels on Council homes without an initial major financial outlay of the direct installation project. However, staffing costs would be incurred to provide project management. In this approach a co-operative would be set up by local residents supported by Energy4All, the leading co-operative support external agency, to raise the capital from the community through a locally focussed share offer.
9. Co-operative members would be required to make a financial contribution to the project and would be looking for a fair return on their investment, contribute to creating more renewable energy and support their local community. They are paid interest and any surpluses would be available to fund other energy efficiency measures.
10. This option requires expenditure on staffing costs at the outset, and would only generate a small surplus during the last five years of the 20-year term.
11. **Rent-a-roof schemes** install solar PV panels on suitable Council house roofs at no cost to the Council, except staffing costs. Roofs are leased for a period of 20 years for a rent, paid annually throughout the lifetime of the project. With the significant reduction in Government Subsidy (Feed In Tariff) since 2011, these

schemes are less financially attractive, offered by fewer providers and require the Council to relinquish control over part of their housing asset.

12. This option requires expenditure on staffing costs at the outset and does not provide any surplus during the 20-year term of the project.

### Financial comparisons

13. The cost comparisons of each option are set out in Annexe 1.

### Risks

14. Before considering the associated risks of each of the project options, it is important to consider the potential risks to the Council of pursuing any scheme including:

- The impact that the installation of solar PV panels will have on the Council's housing asset over the next 25 years, such as reducing flexibility to refurbish or redevelop without significant additional cost
- The most suitable roofs were selected for the 2011 project, leaving the less efficient roofs for any future project, which will affect the return to the Council in the form of "export" tariffs
- To reduce the impact of fuel poverty on all Council tenants, there are other energy efficiency measures that the Council is already investing in such as double glazing, new doors, new heating systems and roofs etc where the risks are lower.

15. Comparative risks associated with each option are:

<b>Risks</b>	<b>PV Direct</b>	<b>Co-operative</b>	<b>Rent-a-roof</b>
Solar PV panel provider gets into financial difficulties over 20 year period	High	High	High
Feed in Tariff reduces further during pre contract period	High	Medium	High
Government reduces subsidy via Feed In Tariff over the 20 year period	Low	Low	Low
Property has an energy performance band of band D or higher	High	Low	High
Works required to improve energy performance of properties rated below EPC band D	High	Low	High
Detailed and complex lease / contract arrangement	Low	Medium	High
Tenant's excluded from the scheme if they have a key meter	High	High	High
Additional cost to the Council if PV panels need to be removed to enable	High	High	High

repair works to the roof over the 20 year period.			
Financial responsibility of dealing with the equipment at the end of its operational life falls to the Council	High	High	High

## **New build**

16. As part of its new build programme, the Council actively considers the use of solar PV panels, alongside other renewable energy options, to achieve Code Level 4 on all new council homes.

## **Conclusion**

17. The benefits of a solar PV panel project are a potential reduction in fuel bills for tenants included in the programme and contributing towards the Council's corporate commitment to the environment and helping to reduce fuel poverty.

18. There are inherent risks associated with all the options set out in this report. Of the three options considered, only the community co-operative approach would generate limited financial return for the Council, and only in the last five years of the 20-year term. However, the Council would face the risks associated with removal and re-instatement costs during the period if repairs or refurbishment work is carried out and when the equipment reaches the end of its life.

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## **Recommendation**

That the Executive:-

1. Notes the financial implications and associated risks of pursuing a further solar PV panel project; and
2. Agrees that the Council does not undertake a further solar PV panel project at this time, but instead focuses on delivering a core range of energy efficiency measures across the Council housing stock, and actively considers the use of solar panels in new housing developments as part of delivery of Code Level 4.

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## **Background Papers**

There are no background papers (as defined by Section 100D(5) of the Local Government Act 1972) relating to this report.

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## **CONTACT OFFICER:**

**Name:** Jane Abraham

**E-mail:**

**Telephone:** 01483 523096

[jane.abraham@waverley.gov.uk](mailto:jane.abraham@waverley.gov.uk)



# ANNEXE 1

## Cost Comparison for Solar panel Installation Scheme

based on 3kWh solar PV panels on 740 properties

Per property	Waverley BC	Community Co - operative	Roof rental
Feed in tariff rate (FIT rate) - current rate	13.41p £	14.9p £	13.41p £
Cost of Panels	5,000	0	0
Staff and Overheads	223	68	68
Maintenance and overheads	950	190	0
End of Life Costs	1,000	1,000	1,000
<b>TOTAL COST</b>	<b>7,173</b>	<b>1,258</b>	<b>1,068</b>
Average Generation	2,206	2,206	2,206
FIT income (annual per property)	347	379	347
20 Years FIT Income	6,585		
Rental Income (8% annual FIT income)			28
Total rental income		1,518	555
<b>TOTAL INCOME</b>	<b>6,585</b>	<b>1,518</b>	<b>555</b>
<b>Net Cost /( income) per property (20 years)</b>	<b>588</b>	<b>-260</b>	<b>513</b>
Total Cost for all properties	5,308,000	930,600	790,000
Total Income from all properties	4,872,670	1,123,119	410,330
<b>Total Net Cost /(income ) from all properties</b>	<b>435,330</b>	<b>-192,519</b>	<b>379,670</b>

Note:

The existing Savills contract has been used for average figures

Roof rent at 8% of tariff income

Average electricity generation 2206Wh

Based on a 20 year tariff life span, tenants should continue to benefit from free electricity beyond that time.

Inflation and financing costs have not been included

The feed in tariff is going to be reduced as part of the government's energy policy.

A 0.5pence drop in tariff reduces average income by £11 per property per year (approximately £150,000 overall)

### Cashflow re proposed Solar Panel income and expenditure

	Year	1	2	3	4	5	6-10	11-15	16-20	Total	
WBC	Expenditure	1,323,483	1,323,483	1,323,483	35,150	35,150	175,750	175,750	915,750	5,308,000	
	Income	85,485	170,971	256,456	256,456	256,456	1,282,282	1,282,282	1,282,282	4,872,670	
	Net Position	-	-	-	221,306	221,306	1,106,532	1,106,532	366,532	-435,330	Cost
Co-operative	Expenditure	16,667	16,667	16,667			0	0	880,600	930,600	
	Income	0	0	0	0	0	0	0	1,123,119	1,123,119	
	Net Position	-16,667	-16,667	-16,667	0	0	0	0	242,519	192,519	Income
Roof Rent	Expenditure	16,667	16,667	16,667			0	0	740,000	790,000	
	Income	20,517	20,517	20,517	20,517	20,517	102,583	102,583	102,583	410,330	
	Net Position	3,850	3,850	3,850	20,517	20,517	102,583	102,583	-637,417	-379,670	Cost

WBC We never fully recoup all the costs incurred over the 20 year period, but do benefit from £220,000 income most years

Co -op We do not recoup the initial cost until year 17, when we receive £240,000 and surplus income of £190,000.

The income in years 18-20 is offset by the termination costs

Roof Rent We benefit from income of £20,000 each year but the termination costs are significantly more than the total income we would receive.