

# Crawley Borough Council



## Report to Cabinet

9 September 2015

### **Your Energy Sussex (Formerly Sussex Energy Saving Partnership) and the Installation of PV to Crawley Homes properties**

Report of the Heads of Partnership Services and Crawley Homes  
Report number: HPS/01

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#### **1. Purpose**

- 1.1 The report will cover two projects for the council:
- An update on the current position relating to the Your Energy Sussex partnership (previously known as Sussex Energy Saving Partnership); and
  - The installation of photovoltaic (PV) solar panels to council tenanted properties.
- 1.2 It will explain the benefits of both projects and recommend the best value option for PV installation considering the differing implications for funding, payback and benefits to the Council and its Tenants

#### **2. Recommendations**

- 2.1 The Cabinet is recommended to:
- a) Confirm that the council will become an Affiliate Partner in the Your Energy Sussex (YES) partnership
  - b) To delegate the Deputy Chief Executive, in consultation with the Head of Legal and Democratic Services, the completion of the legal processes necessary to enable the Council to become an Affiliate Partner
  - c) Permit West Sussex County Council, through YES, to install solar PV panels on Crawley Homes properties

#### **3. Reasons for the Recommendations**

- 3.1 The council previously committed to becoming a YES Strategic Partner (Cabinet report 04 December 2013).
- 3.2 Due to procurement issues, it is now recommended to become an Affiliate Partner of YES rather than a strategic partner. The partnership agreement does allow the flexibility and freedom to move between the two levels of membership should the Council wish to opt to reconsider at a later date.
- 3.3 The YES PV programme has access to public and private domestic roof space beyond the Crawley Homes properties. The resulting economies of scale provide greater fuel poverty and carbon emissions reduction for both council and private residents than if the Council were to act alone.

- 3.4 It will deliver installed PV arrays significantly quicker than if the Council were to procure its own programme.
- 3.5 The Feed-in-Tariff revenue contributed to YES by the work will provide an important revenue stream to YES. The Council will subsequently have significant leverage in negotiations on where to spend this (and other) 'YES Funding'. This will enable officers to work on lowering energy consumption and emissions across the town further than if the Council were to have no input into YES decisions.

#### **4. Background and Legal Implications**

- 4.1 The Council is working to a target of 20% reduction of carbon emissions by 2020 as a milestone on the road to a zero carbon council by 2050.
- 4.2 The Council is also committed to a programme of installing solar panels on suitable Crawley Homes properties as part of ongoing work to improve the energy efficiency of the council's housing stock.
- 4.3 YES aims to bring together all 14 Sussex local authorities to deliver a range of energy efficiency and renewable energy projects using a local workforce over 20-25 years.
- 4.4 The work would be completed on behalf of WSCC by using a local (Sussex and surrounding areas) supply chain that has been established by the appointed delivery partner for YES. This maximises benefit to the local economy.
- 4.5 Initially YES will focus on large-scale retrofit projects, whilst later projects could focus on community scale energy generation, district heating and bulk buying of energy for residents.
- 4.6 Benefits and Opportunities from joining YES as an Affiliate partner include:
- Take a significant step towards making Crawley zero carbon by 2050 and proactively address the reality of fuel poverty already affecting 4,000 households in Crawley
  - Access to the £60 million YES funding for energy retrofits
  - Use expertise to maximise the Council's take up of the subsidies from energy suppliers and other grant funding (e.g. ECO, Green Deal Home Improvement Fund)
  - The option to reduce the cost of energy for the Council's corporate estate including, but not limited to, Pavilions, Neighbourhood Parades and Community Centres
  - Offer for private residents to reduce their energy costs through retrofit programmes and access to the "Sussex Tariff" a lower cost energy tariff for Sussex residents, currently being procured by West Sussex County Council
  - A stronger green economy using local labour in Sussex and Crawley
- 4.7 Affiliate Member obligations under YES are to commit to officer time and communications resources, appropriate use of its brand and working with the Delivery Partner to engage with residents in the most effective way to deliver the benefits to residents.
- 4.8 If the Council joined as a Strategic Member it would have to use all reasonable endeavours to the preferred supplier for the delivery of retrofit works to its own domestic properties and to compete for contracts for retrofit works in respect of its non-domestic properties. It is not recommended that the Council becomes a Strategic Partner at this time due to current procurement issues relating to the direct

appointment for Council works of the preferred supplier without a further procurement exercise being undertaken.

- 4.9 Should the Council not affiliate to YES, this would have the following repercussions:
- There would be no ability to influence YES spend on energy efficiency measures for council tenants, private residents and businesses
  - It would be likely that private sector YES offers will target Affiliated areas in the short and medium-term
  - There would be no access to YES funds in order to finance large energy projects (e.g. Heat Networks)
  - Reduced ability to share knowledge and best practice between other authorities
  - No support when accessing funding for energy efficiency measures (e.g. grant bids, ECO)
  - Likely that fuel poverty and energy consumption will be higher
  - Requirement to undertake all procurement exercises for energy efficiency work not covered by existing agreement with MITIE

## **5. Solar PV Project**

- 5.1 In order to reduce fuel poverty and carbon emissions, Crawley Homes intends to improve the energy efficiency of its properties by installing solar PV arrays. These allow the electricity that is generated to be consumed on-site by tenants for free.
- 5.2 Typical savings are between £100 and £135 per household per year<sup>1</sup>. There are no commercial storage technologies available at present, so any additional electricity is exported to the National Grid.
- 5.3 Revenue is earned for the financier of PV through a Feed-in-Tariff (FiT). A pricing formula is in place to ensure the tariff is reduced in line with falling costs of PV, and is reviewed quarterly. There is a risk of policy change in the frequency and magnitude of the tariff reductions.
- 5.4 There are three options for installing PV, with varying implications for scale, cost, risk and return. These are now presented and summarised in Appendix A.

## **6. Option A: YES Fund**

- 6.1 CBC could allow YES to 'rent' the roof space of eligible homes and install PV on all viable stock. It is estimated that up to 2000 roofs could be eligible.
- 6.2 YES would own and maintain the systems throughout the 20-year duration of the FiT, which they would retain. After its expiration, Crawley Homes would inherit the systems. It is expected that the systems would be in a good condition after twenty years, although it is not possible to predict the level of maintenance/performance to be expected.
- 6.3 CBC would contract directly with WSCC. There would be no other partners with whom CBC would have a contractual relationship and there are no associated financial risks to CBC.
- 6.4 The council must become an Affiliate Partner of YES in order to access the YES fund.

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<sup>1</sup> All savings figures from the Energy Saving Trust (<http://www.energysavingtrust.org.uk/domestic/>)

- 6.5 Adur DC have committed all of their housing stock to the programme. Arun DC have also explored this option at length and other Sussex councils (including Brighton and Hove City Council) have been engaged as well.
- 6.6 By combining housing stock across Sussex, the increased economies of scale mean that a greater number of installations are completed. This increases the tenants' financial and carbon savings made by the project.
- 6.7 The framework and supply chain that will be used to install the PV are already established and work has been done to begin to identify properties in Crawley that would be part of a 'first phase' of installations. Work can therefore begin quickly, with no lengthy procurement or desktop analysis exercises. This provides a visible, positive project for the council and minimises the risk that the FiT is withdrawn or substantially reduced, making the programme unviable.

## **7. Option B: CBC Tender**

- 7.1 CBC could decide to use its own capital to install PV on its social housing stock. A loan will be used to fund the project with the intention to install the maximum amount of PV in order to optimise financial and emissions savings.
- 7.2 The General Fund would adopt the financial risk and reward of the project.
- 7.3 Officers would therefore be required to procure the delivery partner through either an OJEU compliant framework agreement (see Section 8) or an OJEU tender process. Ongoing resources would also be required to assist with engagement and planning.
- 7.4 When using either procurement option, the council will be obliged to award the works to the organisation submitting the most economically advantageous tender.
- 7.5 Due to OJEU rules, the council cannot restrict the procurement on a geographical basis. The council will encourage bidders to prioritise local labour if economically viable, however there is no guarantee of its use in the installation of the PV.
- 7.6 The project will be procured and managed in multiple smaller phases so that the council can gradually gain experience in procuring, operating and communicating the benefits of PV over time.
- 7.7 Officers have obtained an indicative quote of £81 000 for the consultancy required to support the Council for this project.
- 7.8 Using a desktop assessment, it is proposed to install PV on properties that meet financial criteria guaranteeing the return presented in Appendix B.
- 7.9 The following risks have been identified that may impact on the financial viability of installing PV to a property:
- Phased approach will reduce economies of scale and therefore increase cost per installation.
  - The lead in is likely to be in excess of nine months. During this period it is very likely that the FiT would reduce, perhaps considerably.
  - As the PV is funded through debt, then the cost of that debt must be considered
- 7.10 Officers have had early discussions with a number of potential suppliers for this work and have based any financial projections on the assumption that 1500 installations will be completed. This is 500 fewer than estimated for Option A, due to the additional economies of scale a countywide approach could achieve.

- 7.11 It is estimated that the amount of capital required would be £5.4m, which would yield an NPV (net present value) surplus of £417,939.
- 7.12 See Appendix B for more information on the financial returns.

## **8. Option C: Framework Procurement**

- 8.1 As in Option B, CBC would finance the project and adopt all associated risk and rewards.
- 8.2 Accessing a framework is likely to slightly decrease the lead-in time and associated risks when compared to running a full tender process.
- 8.3 The council will be charged for access to the framework. This is likely to be in the region of 1% of the total contract value.
- 8.4 Unless a single appointed supplier exists, a mini-competition will be undertaken in order to determine the winning bidder. The council will have some control over the award criteria, but this will be limited by the terms and conditions of the framework agreement.
- 8.5 As the council will be using the framework to access existing supply chains, it is less likely that local labour will be used.
- 8.6 Apart from the time/costs associated with running the tender, the resource requirement will remain the same as Option B. This includes the need to procure a consultant.

## **9. Summary and Background Papers**

- 9.1 A summary table of the three PV options is presented in Appendix A
- 9.2 Background Papers:
- a) December 2013 Cabinet Report (DCS/024)  
[http://www.crawley.gov.uk/pub\\_livx/groups/operational/documents/commiteereport/pub206841.pdf](http://www.crawley.gov.uk/pub_livx/groups/operational/documents/commiteereport/pub206841.pdf)
  - a) November 2012 Cabinet Report (AM/048)  
[http://www.crawley.gov.uk/pub\\_livx/groups/operational/documents/commiteereport/pub183317.pdf](http://www.crawley.gov.uk/pub_livx/groups/operational/documents/commiteereport/pub183317.pdf)

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## APPENDIX A: Summary

Option:	A: YES Fund	B: CBC Tender	C: CBC Framework	Notes
<b>Total PV installs (approx.):</b>	2000	1500	1500	
<b>Consultant costs:</b>	Nil	£81 000	£81 000	
<b>Capital cost to CBC:</b>	Nil	£5.4m	£5.5m	
<b>Potential NPV of project:</b>	No return	£349k	£308k	See Appendix B for more information
<b>Rate of return</b>	N/A	3.98%	3.87%	
<b>Total tenant financial saving:</b>	£220 000	£165 000	£165 000	Based on £110/house
<b>Total emissions saving:</b>	2 805 tCO2/year	2 104 tCO2/year	2 104tCO2/year	Based on Energy Saving Trust figures: 1402kg/house/year
<b>Resource commitment from CBC:</b>	Low	Very High	High	
<b>Labour pool:</b>	Local (Sussex)	Unlikely to be predominantly local	Very unlikely to be predominantly local	
<b>Ability to leverage in additional YES funding:</b>	High	Minimal	Minimal	
<b>Approx month of first install</b>	January 2016	Oct 2016	Oct 2016	
<b>Key Risks</b>				

## APPENDIX B: Finance

The assumptions which have been used in the economic modelling of option B are as follows:

Assumption	Notes
£3 600 cost of average (3kW) installation	Indicative figure provided by a large organisation in the industry. Given the time involved in procurement/mobilisation it is expected that this will reduce in line with FiT reductions.
Aftercare costs included (approx. £70/system/year)	This price should provide a comprehensive package for the duration of the installation and is based on figures provided by industry
1500 installations completed	Likely number of installations 1200 – 2500, depending on financial viability. YES model believed to be more financially favourable due to economies of scale
FiT generation rate: 11.63p/kWh	Rate effective 1 Sept 2015 – 1 Dec 2015

### Cashflow (£000s)

Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
<b>Capital expenditure</b>	-5400																					
<b>Revenue</b>																						
Income		503	511	519	526	534	542	550	558	567	575	583	591	600	608	616	625	633	641	650	658	
Expenditure		-53	-53	-116	-119	-123	-127	-130	-134	-138	-143	-147	-151	-906	-160	-165	-170	-175	-181	-186	-192	
Interest payable		-148	-140	-132	-123	-114	-105	-96	-86	-77	-66	-56	-45	-35	-23	-12	-	-	-	-	-	
Minimum Revenue Payment (MRP)		-296	-304	-312	-321	-330	-339	-348	-358	-367	-377	-388	-398	-409	-421	-432	-	-	-	-	-	
		<u>6</u>	<u>14</u>	<u>-41</u>	<u>-37</u>	<u>-32</u>	<u>-28</u>	<u>-24</u>	<u>-20</u>	<u>-16</u>	<u>-12</u>	<u>-8</u>	<u>-4</u>	<u>-750</u>	<u>4</u>	<u>7</u>	<u>454</u>	<u>458</u>	<u>461</u>	<u>464</u>	<u>467</u>	
<b>Cumulative</b>		6	20	-22	-58	-91	-119	-143	-163	-178	-190	-198	-202	-952	-948	-941	-487	-29	432	896	1363	
Interest rate	2.74%	Discount rate 5%																				
Duration (yrs)	15	NPV 418																				

## **APPENDIX C: Frequently Asked Questions**

### **How does the agreement work?**

Crawley Homes will allow YES to install panels on their roofs – effectively ‘renting’ the roof space for a period of twenty years. During this time, YES will maintain the panels and receive the Feed-in-Tariff for the electricity generated. This payment does not vary according to the amount of electricity used by tenants on site.

YES will offer panels to tenants on an opt-in basis. Because of the significant benefits to residents, Crawley Homes and YES will commit resources to maximising the uptake of installs across the town. It is expected that this will be alongside a wider energy awareness programme (including the council’s Energy Switching campaign). Examples of activities include attendance at neighbourhood forums and hosting carbon cafés, which have recently saved residents £9000 in areas of Chichester District.

After the twenty year lifetime of the agreement the ownership and maintenance requirements of the panels will transfer to Crawley Homes. This will allow tenants to continue benefitting from free electricity and ensure that the panels are properly maintained for as long as possible.

### **What happens if a tenant wishes to buy their property under Right to Buy?**

The exact details will be confirmed during the legal negotiations between Crawley Homes and YES. At present, it is likely that the panels will remain the responsibility of YES for the duration of the FiT. At the end of this period, homeowners will then have the option to remove the panels or decide to adopt them themselves. More information will be provided to tenants during the engagement process.

### **Why do you think you will install PV on 2000 properties?**

In 2014, YES conducted a desktop analysis exercise on a portfolio of Crawley Homes properties in Broadfield and Langley Green. This explored the suitability of these properties for the installation of PV and indicated that approximately 35% of these properties would be suitable to receive PV.

Expanding this across the portfolio and factoring in a ‘dropout rate’ due to tenant refusal, access issues or unforeseen problems (e.g. weak roofs), it was agreed that 2000 would be an appropriate number to use. If it transpires that more than 2000 tenants are eligible and willing to receive PV, then this will still be possible.

### **Who will complete the work?**

West Sussex County Council have appointed a primary delivery partner for the work, who have then engaged with a number of local suppliers covering all aspects of energy efficiency work. As a result, a local supply chain has been established and it will be contractors from this supply chain who complete the majority of work on site.

### **Have you considered battery storage options?**

There are currently a number of batteries commercially available, however with a lack of government support (similar to the Feed-in-Tariff), it is not yet financially viable to install these into Crawley Homes properties. Crawley Homes will continue to evaluate the viability of these as part of its ongoing energy efficiency programme.



### **Are YES able to provide panels for private homeowners?**

Yes. One of the key benefits of the Your Energy Sussex partnership is that private homeowners will be able to access the same deals as Crawley Homes. During the engagement period, the council and YES will make every effort to promote the uptake of the competitive PV offer to private households. This will help Crawley's private market reduce their fuel bills and carbon emissions.

Private households will need to fund the installation themselves, however they will also be eligible to receive the FiT and benefit from reduced electricity bills. The council encourages any private homeowner who is interested in installing panels to speak to YES and explore whether a private PV system would be suitable for their property.

### **Are YES able to install panels on other council buildings?**

Yes, although this will be strictly on a 'rent a roof' basis unless the council becomes a Strategic Partner. This would mean that the council does **not** receive the FiT, but would still benefit from the free electricity.

As the majority of viable CBC buildings already have PV installations, it is not felt that this will form a significant part of the YES partnership.