

Policy and Resources Committee

24th June 2015

Is the final decision on the recommendations in this report to be made at this meeting?

Yes

Installing renewable energy technology

Final Decision-Maker	Policy and Resources Committee
Lead Director or Head of Service	David Edwards, Director of Environment and Shared Services
Lead Officer and Report Author	Marcus Lawler, Commercial Projects Manager
Classification	Non-exempt
Wards affected	All

This report makes the following recommendations to Committee:

1. That the Committee approves the purchase, installation and operation of photovoltaic technology on the following buildings within the Council's estate:

Building	Array
Lock Meadow Market Hall	50kw
Vinters Park Crematorium	10kw and 4kw
Magnolia House	24kw

2. That the Committee approves the purchase of renewably generated electricity from a third party at Maidstone House.
3. That the committee approves a budget of £125,000 to implement the recommendations.
4. That the Committee delegates authority to the Commercial Projects Manager to spend that budget and enter into the appropriate contracts to implement the recommendations.
5. That the Committee delegates authority to the Commercial Projects Manager to obtain the necessary permissions and licences to implement the recommendations including: registration for Feed in Tariff; sale, export or purchase of electricity; and appropriate agreements with the District Network Operator; and to assign those permissions and licences as appropriate.
6. That after conducting the trial of Power Purchase Agreements a further report is brought to the Committee suggesting further sites for the installation of renewable energy technology; and detailing any recommended policies to promote the environmental and financial benefits of this technology in the wider Borough.

This report relates to the following corporate priorities:

- Great People
- **Great Place**
- Great Opportunity

Timetable

<i>Meeting</i>	<i>Date</i>
Policy and Resources Committee	24.06.2015
Council	Not required
Other Committee	Not required

Installing renewable energy technology

1. PURPOSE OF REPORT AND EXECUTIVE SUMMARY

- 1.1 The Council will be producing a Low-Emissions Strategy during 2015/16. A central theme of the Strategy is the reduction of carbon emissions across the Borough. The previous Carbon Management Plan will be superseded by the Low Emissions Strategy. Approving the recommendations within this report will support delivery of the carbon reduction theme in the Low-Emissions Strategy and implementing the recommendations within this report will generate a carbon reduction of a minimum of 62.83 tonnes of carbon, per annum.
- 1.2 Implementing the recommendations in this report will also make a predicted income contribution to the Council of £19,402 per annum; equivalent to a 16.18% return on capital employed.
-

2. INTRODUCTION AND BACKGROUND

- 2.1 On 27th February 2015 the Cabinet Member for Environment and Housing approved a project to install a 50kw array at the Council's depot on Bircholt Road (see Para.9 Background Papers). The project was delivered in time, and under budget. Since its commissioning on 16th March 2015, the depot array has generated 16,069 kWh (as of 8th June 2015). This means the equipment is performing better than expected and this project can therefore be viewed a success.
- 2.2 The project at the depot was intended to be a trial, and to prove the concepts of carbon offset and savings generation. As the project is a success, a feasibility study of further sites has been conducted, looking at electricity usage and suitability for photovoltaic installation. Five sites were identified (two of which will be covered in a separate report to the Cobtree Manor Estate Trust) leaving three 'top sites' recommended under this report. Microgeneration Certification Scheme (see background documents) performance criteria were applied to the Council's estate and the results for the three sites recommended by this report are as follows:

Site	Array	Orientation (variation from south)	Pitch	Shading Factor	IR Factor	Annual Performance
Market	50kW	55	20	1 (x1)	1081	54,050kwh
Crematorium	10kW	10	50	1 (x1)	1111	11,110kwh
	4kW	55	40	4 (x.96)	1023	3,928kwh
Magnolia	24kW	10	35	1 (x1)	1126	27,024kwh

The predicted performance of the equipment has been measured using the published FiT rates (see Para.9 Background Documents) to show the following annual contributions:

Site	Annual Performance	FiT	Export or saving	Total annual contribution	Annual carbon reduction (tonnes)
Market	54,050kWh	£6,329	£3,243 (S)	£9,572	23.24
Crematorium	11,110kWh 3,928kWh	£1,300 £507	£667 (S) £236 (S)	£1,967 £743	4.78 1.69
Magnolia House	27,024kWh	£2,810	£1,310 (E)	£4,120	11.62
Total	96.112kWh			£16,402	41.33

Note: 1. Where saving is assumed, this is calculated by multiplying the performance of the array by 10.859p per kWh, which is the current purchase price of electricity through LASER(a public sector collective to buy electricity) to give maximum saving available. 2. FiT and Export rates are fixed for 20 years and adjusted annually by Retail Price Index. 3. Payback for the investment is 7.6 years.

2.3 The crematorium has capacity to install arrays with a far greater quantum of potential output. The sensitive nature of the service offered to the borough from this site means that the recommended installation has been calculated using only sites which are considered appropriate. This review has been conducted in conjunction with the Bereavement Services Manager.

2.4 The site with the Council's largest electricity spend is Maidstone House and The Gateway (in excess of £130,000 per annum). This site has been discounted for a direct investment in PV as the council does not own it, and the current lease expires in 2023; this introduces a financial risk which does not exist at the other sites mentioned within this report. The Council does have the opportunity to enter into an assignable power purchase agreement with a generator of renewable energy. This will allow the council to purchase electricity at a lower rate (from 4.85p per kWh) than through LASER and reduce carbon emissions. This type of opportunity exists at other sites on the Council's estate and this portion of the report can be viewed as a trial; the results of which will contribute to future policy and projects. The direct benefits from entering into a PPA at Maidstone House can be summarised, for an assumed 50kw array as follows:

- Savings of £3,000 per annum.
- Carbon reduction of 21.5 tonnes per annum.

2.5 This feasibility study, assumptions and this report have been reviewed by Aylesbury Vale District Council. Aylesbury Vale is an exemplar local authority for renewable energy technology and their report can be found at Appendix A.

2.6 LASER has been consulted with regard to the recommendations contained within this report and they have confirmed that should the Committee approve

them they will not affect the Council's agreement with LASER to buy electricity through them.

2.7 The funding needed to implement the requirements can be broken down as follows:

Item	Amount
Estimated cost of arrays and installation	£100,000
QA of project estimates and reports	£1,500
QA of technical aspects by structural engineer	£6,000
Building control	£2,200
Legal review of power purchase agreement	£2,500
Post-project QA inspections	£1,200
Project manager's contingency	£10,000
Total	£123,400

3. AVAILABLE OPTIONS

- 3.1 The Committee could decide not to approve any of the recommendations. This will mean that none of the benefits at para. 4 will be realised and this will have particular impact for the Medium Term Financial Strategy as alternative savings will have to be identified.
- 3.2 The Committee could elect to approve just the Council owned installations and operation of photovoltaic technology. This would mean the Council do not have the opportunity to learn the lessons derived from a trial project and then apply them to future projects and policy.

4. PREFERRED OPTION AND REASONS FOR RECOMMENDATIONS

- 4.1 To approve the recommendations contained within the report.
- 4.2 This will support the carbon reduction theme contained within the draft Low-Emissions Strategy.
- 4.3 This will contribute to the savings identified within the Medium Term Financial Strategy.

5. CONSULTATION RESULTS AND PREVIOUS COMMITTEE FEEDBACK

5.1 Not applicable.

6. NEXT STEPS: COMMUNICATION AND IMPLEMENTATION OF THE DECISION

6.1 Assuming the Committee approves the recommendations contained in this report, the main actions will be as follows:

Action	Date
Committee decision to proceed	24.06.2015
Passed to Comms Team for review and action	28.06.2015
Procurement	28.06.2015
QA	28.06.2015
Installation	28.08.2015
Commissioning	29.09.2015

7. CROSS-CUTTING ISSUES AND IMPLICATIONS

Issue	Implications	Sign-off
Impact on Corporate Priorities	This report sits in support of: <i>Keeping Maidstone Borough an attractive place for all.</i> <i>Providing a clean and safe environment</i>	Director of Environment and Shared Services
Risk Management	Risk management provision is contained within the Commercialisation Strategy and this project is covered by those provisions. The risks associated with this project will be identified on a risk register.	Head of Audit Partnership
Financial	A provision for commercial projects is contained within the capital programme and the recommendations within this report will be covered by that provision. This is not a named project but can be covered by this allocation in the capital programme. The payback period for this project is 7.6 years.	Director of Communities and Regeneration Senior Accountant (Client)
Staffing	Not required.	
Legal	The Sale of Electricity by Local Authorities	Deputy Head of

	<p>(England and Wales) Regulations 2010 provide a power allowing local authorities in England to sell electricity generated from renewable sources including solar.</p> <p>Confirmation of Permitted Development Rights at each proposed site should be sought from Planning as part of project assurance.</p> <p>Confirmation that no restrictive covenant or other title issue exists at each proposed site should be sought from Mid-Kent Legal as part of project assurance.</p>	the Legal Partnership
Equality Impact Needs Assessment	Not required.	
Environmental/Sustainable Development	The installation of this equipment is covered by permitted development rights and no planning application needs to be made.	Development Manager
Community Safety	Not required.	
Human Rights Act	Not required.	
Procurement	The council will comply with all relevant legislation and procedures. The procurement process will be conducted with the support of the Procurement Manager. The quantum of spend when combined with the previous depot project is below the threshold for mandatory application of EU procurement rules. Due to financial implications of protracted procurement (multiple reviews of the FiT), a CSO will be sought to promptly procure the installation of these arrays.	Property and Procurement Manager
Asset Management	Energy reduction and the opportunity to introduce renewable energy generation is an important element of good asset management.	Property and Procurement Manager

8. REPORT APPENDICES

The following documents are to be published with this report and form part of the report:

- Appendix A – Aylesbury Vale District Council report.

9. BACKGROUND PAPERS

- Cabinet member decision 27th February 2015.