



Cabinet

25 May 2011

Generating Income from Renewable Energy: Progress

1. Summary and Reasons for Recommendations

1.1 Following recommendations from the Sustainable Development Working Party and Cabinet, the Council resolved on 14 December 2010 (minute 73(B)(3) refers) that:-

- (1) *subject to final survey, tender and further investigation of other sources of funding, up to £410,000 from the unallocated capital provision be allocated to fund renewable energy generation as identified in the investment models set out in Report B317;*
- (2) *further analysis be carried out of a community-based investment model with the aim of realising an equitable return both for the Council and the community as well as energy and CO₂ savings; and*
- (3) *the Cabinet be given delegated authority to approve the final scheme.*

1.2 This report sets out the following:-

- (a) the findings of further exploration of other funding avenues;
- (b) preferred procurement routes for renewable technologies; and
- (c) specific investment proposals for renewable energy.

2. Recommendations

2.1 It is **RECOMMENDED** that:-

- (a) the preferred procurement routes, as outlined in paragraph 5.4 of Report C7, be adopted; and
- (b) subject to survey, specific funding in the region of £17,000 be allocated from Growth Area Funding for the proposed installation of solar energy generation at the proposed Nowton Park Visitor Centre.

3. Corporate Objectives

3.1 The recommendation meets the following, as contained within the Corporate Plan:-

- (a) Corporate Priorities:
 - (i) 'Raise standards and corporate efficiency';
 - (ii) 'Improving the safety and well being of the community';
 - (iii) 'Securing a sustainable and attractive environment'; and
- (b) Vision 2025: St Edmundsbury will be a place:
 - (i) 'where communities and businesses have benefited from adopting a low carbon approach to energy (S8)';
 - (ii) 'Which has adapted and mitigated the effects of climate change (S9)';

- (c) Cabinet Commitments:
- (i) Clean and Green - Appropriate actions to mitigate for and adapt to climate change; promote sustainable and carbon neutral development.
- 3.2 The recommendations also support the Borough Councils' Sustainability Policy and Climate and Energy Action Plan.

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Glossary of terms used in this report

Clean Energy Cash Back: A scheme introduced by the UK Government, funded by energy supply companies, where payments are made to produce energy from different forms of renewable and low carbon sources such as solar, wind, water and biomass.

DECC: Department of Energy and Climate Change.

Framework agreement: A procurement agreement with suppliers which set out terms and conditions under which specific purchases (call-offs) can be made throughout the term of the agreement. Agreements can be established in a way which allows access by others to buy goods or services using the same terms and conditions allowing best value on cost and quality.

FIT: Feed-in Tariff. 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: Kilowatt Peak. The design generating capacity of a particular installation.

kWh: Kilowatthour. The actual amount of electricity which is generated is expressed as kWh, or kilowatt hours.

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.

RHI: Renewable Heat Incentive. A system of payments to renewable/low carbon heat generators.

Solar Hot Water (Thermal): Heating systems use heat from the sun to work alongside a conventional water heater.

Solar PV or PV: Photovoltaics. Panels which can be attached to a roof, walls or floor mounted frame and generate electricity by converting sunlight.

4. Background

- 4.1 Council considered proposals for investing in renewable energy generation as a means of generating income and cutting CO₂ emissions by utilising the Government-backed Clean Energy Cashback. The Cashback is an income incentive to small scale, low carbon or renewable electricity and heat generation. Investors are paid for the electricity and, from June 2011, the heat their system produces. The introduction of Cashback in the UK has made installing smaller scale renewable electricity generation financially attractive. An explanation of the Cashback is given in Annex 1 to this report.
- 4.2 The Council allocated up to £410,000 for this project and Cabinet was given delegated authority to approve the final scheme prior to commencement. It was considered that the Council should continue to explore other avenues of funding before finally committing to the scheme.
- 4.3 This report sets out the following:-
- (a) the findings of further exploration of other funding avenues;
 - (b) preferred procurement routes; and
 - (c) specific investment proposals for renewable energy at the first site in the project.

5. Progress to date

- 5.1 The outcome of research into alternative sources of funding has identified that this project qualifies for green infrastructural capital investment using the Growth Area Fund. On 16 March 2011 the Cabinet approved a contribution from the Growth Area Fund to the Borough Council's Renewable Energy Generation Scheme (minute 140(2) refers). It is proposed, therefore, to make an allocation from the Growth Area Fund contribution for this purpose in advance of using the Council's Unallocated Capital Provision.
- 5.2 The Borough Council has been working with its local authority partners in Suffolk, in particular Forest Heath District Council, to achieve the most suitable, timely and cost effective procurement options for the project.
- 5.3 A range of procurement options have been considered. These have included undertaking a tendering process either for the Borough Council alone or with neighbouring councils, identifying a Framework Agreement to which the Borough Council has access or working with other organisations to develop an approach which meets the project requirements and European Union procurement rules, given the nature and value of the contract.
- 5.4 Selecting the preferred procurement option is dependent on several factors, in particular to meet European Union (OJEU) procurement rules and also whether the host site is a new build or already in existence. Based on these and other criteria, officers consider that the following options provide the best procurement approach:-
- (a) **For new build sites:** Renewable energy technologies can be procured alongside the construction contract; and
 - (b) **For existing buildings:** A framework agreement has been identified which will allow the Borough Council to procure renewable technologies in a cost effective manner. This procurement arrangement will become available to the Borough Council in August 2011. Other framework agreements have also been identified which could be used in the event of problems with the preferred option. This approach allows the Council to invest alongside neighbouring local authorities to achieve cost savings.

5.5 Under this project, the first site where renewable energy technologies are proposed is the Nowton Park Visitor Centre in Bury St Edmunds, planned for construction during the second half of 2011. Subject to survey, the Centre is likely to be suitable for both a solar thermal collector and photovoltaic array. These systems will help to heat water for use in the sports changing facilities and also produce electricity. The power will either be used within the building as it generated or exported to the grid when the building has little or no electrical demand.

5.6 A summary of the indicative investment and return over the lifetime of the systems proposed for the Nowton Park Visitor Centre is shown below:-

Capital cost	*Average annual revenue costs	*Lifetime revenue costs	**Gross annual income	**Gross lifetime income	Payback period	Lifetime CO ₂ savings
£17,000	£250	£5,500	£1,350	£43,000	12.5 years	40 tonnes

* Includes maintenance, administration, loss of interest on capital investment and insurance.

** Arising from the tariff payments under the Clean Energy Cashback along with energy savings. The term of Cashback payments are set by DECC and are twenty years for solar thermal and twenty five years for solar photovoltaics.

6. Other Options considered

6.1 The options appraisal for the project as a whole is set out in Report B317 to the Sustainable Development Working Party on 23 November 2010.

6.2 Sources of grant funding to local authority renewable energy schemes have been withdrawn in the last nine months following the introduction of the Clean Energy Cashback and the Government Spending Review. However, officers will continue to work to identify appropriate external funding sources.

6.3 Officers considered undertaking an OJEU-compliant tendering process, either restricted to the Borough Council or with local authority partners. These options were discounted because of the time and resources required for a successful outcome.

6.4 Several technologies for the Nowton Park Visitor centre, including biomass heating using wood chip, were considered but discounted for technical and financial reasons.

7. Community impact *(including Section 17 of the Crime and Disorder Act 1998 and diversity issues)*

7.1 The impact of the project as a whole on the Community is set out in Report B317.

7.2 The procurement and funding arrangements referred to in Section 5 will ensure that best value is achieved and that the impact on Council capital expenditure is minimised.

8. Consultation

8.1 The arrangements for consultation regarding the project as a whole are set out in Report B317 with the key proposals being subjected to both Equality and Sustainability Impact Assessments, the findings of which have been incorporated into the recommendations.

9. Resource implications *(including asset management implications)*

9.1 The resource implications of the project as a whole are set out in Report B317.

9.2 Such an investment ensures that invested capital is replenished with maximum payback of 13 years. In addition, using the Growth Area Fund will not have an impact on the Borough Council's capital provision.

10. Legal or policy implications

10.1 The legal and policy implications of the project as a whole are set out in report B317.

Wards affected	All	Portfolio Holder	Environment
Background Papers Report B317 Report B342		Subject Areas	Environment and Property Management

The Clean Energy Cashback Scheme

A1.1 The Clean Energy Cashback Scheme comprises two parts:-

- The Feed-In Tariff (FIT) for electricity generation launched in April 2010; and
- The Renewable Heat Incentive due for launch in June 2011.

A1.2 The Feed-In Tariff (FIT) for electricity generation

Those eligible to receive the Feed-in Tariff (known as the FIT) will benefit in three ways:

- i) **Generation tariff** – a set rate paid by the energy supplier for each unit (or kWh) of electricity generated. This rate will change each year for new entrants to the scheme (except for the first 2 years), but after joining participants will continue on the same tariff for 20 years, or 25 years in the case of solar electricity (PV).
- ii) **Export tariff** - participants will receive a further 3p/kWh from their energy supplier for each unit exported back to the electricity grid, that is when it isn't used on site. The export rate is the same for all technologies.
- iii) **Energy bill savings** – participants will be making savings on their electricity bills, because generating electricity to power appliances means that the participant does not have to buy as much electricity from their energy supplier. The amount saved will vary depending how much of the electricity used on site.

As an example provided by the Energy Saving Trust, typical small-scale solar electricity (PV) system, with an installation size of 2 kWp (kilowatts peak output) could earn around:

- £700 per year from the Generation Tariff
- £25 per year from the Export Tariff
- £110 per year reduction in current electricity bills.

This gives a total saving of around £835 per year. This assumes 50% of the electricity generated is exported. The figure will vary depending on how much is exported.

A1.3 The Renewable Heat Incentive (RHI) for heat generation

The Department of Energy and Climate Change (DECC) recently announced that it will launch in June 2011 a payment scheme to reward renewable and low carbon heat generation.

The scheme should support a range of technologies, ground source heat pumps, solar thermal, biomass boilers, renewable combined heat and power, use of biogas and bio-liquids and the injection of bio-methane into the natural gas grid. DECC state that tariff levels have been calculated to bridge the financial gap between the cost of conventional and renewable heat systems at all scales, with additional compensation for certain technologies for an element of the non-financial cost and a rate of return of 12% on the additional cost of renewables, with 6% for solar thermal.