

BABERGH DISTRICT COUNCIL and MID SUFFOLK DISTRICT COUNCIL

From: Head of Environment	Report Number: N129
To: Executive Committee Strategy Committee	Date of meeting: 7 April 2014 10 April 2014

PHASE ONE OF THE DELIVERY OF RENEWABLE ENERGY TECHNOLOGIES IN THE DISTRICTS: INSTALLATION OF SOLAR PANELS TO COUNCIL HOUSING STOCK IN THE BABERGH AND MID SUFFOLK DISTRICTS

1. Purpose of Report

- 1.1 To present the first phase of a programme for the delivery by the Councils of renewable energy technologies across the Babergh and Mid Suffolk districts. This first phase seeks to secure the installation of solar panels to technically-appropriate Council housing, whilst further phases would seek to deliver renewable technologies on other Council-owned buildings, and private and community buildings. Options for installing other forms of renewable technologies in Council houses that are not suitable for solar panels are also under consideration. The Councils would therefore administer the programme as “multi-purpose local authorities”, rather than as landlord authorities in the performance of their specific functions under Part II of the Housing Act 1985.
- 1.2 This report presents the business case for the funding and installation of solar panels to approximately 2,150 Council houses across the Babergh and Mid Suffolk districts in order to: provide a long term income stream for the General Fund of each Council; and contribute to achievement of the Councils’ strategic priorities of protecting the environment by reducing greenhouse gas emissions and improving health and wellbeing by reducing fuel poverty. Approval is sought to commence the scheme in May-June 2014.

2. Recommendations

- 2.1 That the principle(s) of the overall programme, as set out in the report, be endorsed.
- 2.2 That the specific proposals and business case in the report for the Council housing properties, including the use of General Fund prudential borrowing for the capital investment, be approved.

The Committee is able to resolve this matter.

Note:

The investment required and expected returns for each Council are presented separately for the two local authorities to enable independent decisions to be made. The business case is viable whether both or only one of the Councils decide to proceed.

3. Financial Implications

- 3.1 It is proposed that this project is undertaken under General Fund (not HRA) powers. This will ensure that the income stream derived will benefit the General Fund. It also means that the two Councils can utilise the prudential borrowing provisions to fund the capital investment cost and not be limited by the HRA debt cap.
- 3.2 It is likely that a long-term loan will be taken out by each council from the Public Works Loan Board at a fixed interest rate (currently 3.8%) although other financing options will be considered. These include using temporary internal funds initially or taking out short-term loans. This will depend on interest rate forecasts and other factors.
- 3.3 Appropriate allowance has been made in the Treasury Management strategies and borrowing limits for each Council for 2014/15. Further details of the estimated capital investment requirements and the revenue expenditure and income streams are set out in Section 9 of the report.

4. Risk Management

- 4.1 Key risks are set out below:

Risk Description	Likelihood	Impact	Mitigation Measures
Financial milestones are not achieved leading to savings not being realised e.g. proposed investment programme not producing the return on investment anticipated	Highly unlikely	Disaster	Robust business case for investment, close and regular monitoring of benefits and return and revising investment proposals in response to changes in predicted returns.

5. Consultations

Internal consultations with the Councils' Legal and Monitoring Officer and with the Section 151 Financial Monitoring Officers have been undertaken to ensure the proposed scheme meets the Councils' statutory and financial obligations. Both Tenant Forums have been informed of the proposals and have indicated support. Tenancy Agreements will need to be revised to include clauses relating to the solar panels scheme.

6. Equality Analysis

Legal advice indicates that, whilst there are no obvious discrimination issues arising out of the project, a brief Equality Impact Assessment is required in order to ensure that there would be no significant adverse impacts on community groups or individuals as a result of the scheme. This will be undertaken if, and as soon as the business case is approved.

7. Shared Service / Partnership Implications

Officers have developed a joint procurement approach and project management programme for the two Councils. All expenditure and income would be separately accounted for according to the respective capital investment of each authority.

8. Variation of Tenancy Agreements

In order to support the work to inspect, install and maintain solar panels to Council properties a variation to the existing Tenancy Agreement will be required, as the existing terms do not go far enough to support this area of work. A review of the current Tenancy Agreements across both Babergh and Mid Suffolk has been ongoing now for a period of time with a view to producing a standard Agreement for both Districts. It is expected that a full consultation document will be sent to all tenants by early April, such a consultation is required to vary the existing Tenancy Agreements. This variation is likely to take effect from 1 June 2014 and will allow us as the landlord, to manage specifically the work relating to solar panel installation.

9. Key Information

- 9.1 The Councils have powers under S.11 of the Local Government (Miscellaneous Provisions) Act 1976 to generate electricity. This power was further reinforced through the Sale of Electricity by Local Authorities (England and Wales) Regulations 2010 (SI/1910). Provisions are also included in the Localism Act 2011 under "General Powers of Competence" to allow Local Authorities to engage in electricity generation. The Councils would utilise these powers to install solar panels on their housing stock across both districts. The installation of solar panels to Council housing stock is proposed as the first phase in a wider programme of renewable energy schemes across the Districts, for which initial scoping assessments are already underway. Further schemes would extend "our offer" to the private domestic sector and also community buildings, as well as other (non-HRA funded) Council buildings. The scheme to deliver solar panels to Council housing stock is therefore not being delivered as part of the Councils' housing functions.
- 9.2 Officers have obtained legal advice confirming that the Councils have the legal power and ability to finance such a scheme from the General Fund, which would result in them benefiting from the net income - less an appropriate payment being made to the HRA, in accordance with the legal advice obtained.

- 9.3 The legal advice is that, to the extent that Council housing is used for the purposes of the project, a “contribution” should be made into the HRA. How much depends on the level of use and would be a matter of expert valuation advice. If the business case is approved advice would be sought from a professional valuer to obtain a hypothetical licence fee for the general types of properties each Council has in its district (e.g. street level, conversions, low-rise etc). There would be no need for the valuer to assess each property individually. A “reasonable licence fee” would be an appropriate measure.
- 9.4 The proposal is to install an average array of 10 standard monocrystalline, photovoltaic (PV) panels on each suitable property. This would generate 2.5 kilowatt peak (kWp) per property, with a total of 5 megawatt peak of solar capacity. An initial screening survey has identified 2,150 properties that are potentially suitable: 1,250 in Babergh; 900 in Mid Suffolk. However, the final figure may be higher or lower depending on the outcome of more detailed survey work that would be carried out by the contractor appointed to install/manage the scheme. The technical constraints which will affect the final number of properties include:
- the direction each property faces, which determines how much sunlight it gets throughout the day (the closer this is to south the better);
 - the pitch of the roof;
 - any excessive shading from trees or buildings; and
 - the capacity of the local electricity grid to receive all of the power generated from all the properties fitted with solar panels in the area.

Some properties may also be able to accommodate more than 10 solar panels, others less. However, the business case is financially profitable on a “per property” basis.

- 9.5 All installations would be completed under Permitted Development Rights and would be self-certified for Building Regulations. All ancillary equipment such as the electricity generation meter and isolation switches would be installed onto existing meter boards. All installations would be accredited under the Microgeneration Certification Scheme (MCS), which is an internationally recognised quality assurance scheme, supported by the Department of Energy and Climate Change (DECC).
- 9.6 An overview of the business case is presented Table 1 below. The investment requirement and estimated annual expenditure and income are shown for each sovereign Council.
- 9.7 Capital investment on the Council housing properties is estimated at just over £7m for the two Councils. Over the next 20 years, total income is estimated at £19.29m with total expenditure has been estimated at £11.75m, thus resulting in a surplus of £7.54m. Expenditure includes borrowing costs, programmed replacement of ancillary equipment and maintenance. All surplus income from the scheme (minus the contribution to the HRA) would be returned to the General Fund thereby providing a 20-year guaranteed income stream, which would support future Council services and the Medium Term Financial Strategy.

- 9.8 In developing the business case a pessimistic approach has been used in terms of the efficiency assessment of the panels from their installation date. A figure of 10% reduction has been built in, followed by a further annual reduction. It is anticipated that this pessimistic approach will offset any cost or income fluctuations that might arise.

Table 1: 20-year financial overview

	BDC £M	MSDC £M
Capital Investment Cost	4.16	2.99
<u>Total Income</u>		
FiT Generation income	9.48	6.83
FiT Export income (50%)	1.73	1.25
Total income	11.21	8.08
<u>Total Expenditure</u>		
Capital repayment costs	5.81	4.19
Maintenance and cleaning	1.02	0.73
Total expenditure	6.83	4.92
Net income	4.38	3.16
Average annual income	0.219	0.158

- 9.9 The project is expected to make a surplus from year 1, starting at a fairly low level, but increasing year on year as the loan is repaid and annual interest costs reduce. Income from the scheme would be derived from the Government-backed “Feed in Tariff” (FiT) framework, which makes payments to individuals, organisations and businesses that invest in renewable technologies and export the generated electricity to the National Grid. The FiT framework broadly has two components: a ‘generation tariff’ paid for any electricity generated; and an additional payment called the ‘export tariff’ for surplus energy exported to the National Grid.
- 9.10 The FiTs are intended to support the shift to low carbon energy by helping the industry get started, and to encourage installation prices to fall. The aim is ultimately for all these new technologies to be viable without any Government incentive. To encourage this, the tariffs for new projects will reduce annually (“degress”) to reflect (and to some extent encourage) expected decreases in technology costs.
- 9.11 Once a solar panel installation has been registered with the licensed electricity supplier the FiT payments are fixed, guaranteed for 20 years and linked to inflation.
- 9.12 The income that would be derived from the generation tariff has been modelled to take account of the “degression” of the FiTs between now and the proposed installation dates. However, it should be noted that any delay in the programme would be likely to result in reduced income to the Councils as a result of the FiT

- 9.13 As a means of recompense for the inconvenience of hosting solar panels, the electricity generated would be available for use by the tenants of those properties fitted with panels. The Export Tariff is paid per unit of surplus energy exported to the National Grid. However, under the FiT framework there would be no obligation on the Councils to install export meters at additional cost. Under the FiT framework it is simply assumed or “deemed” that 50% of the electricity generated is used at the property and that 50% passes into the Grid.
- 9.14 The FiT framework only “deems” that 50% of the generated electricity is passed to the Grid. The entire 100% could potentially be used by the tenant of each property, although this is unlikely in practice due to underutilisation during sunny periods or times where the home is not occupied. Nevertheless, the value of the electricity available to tenants in the first year has been estimated to be £580,000 and assuming a conservative 5% annual increase in electricity prices, the total value over the 20-year period is estimated to be £19.2m.
- 9.15 Even if the full value of the electricity is not utilised by tenants, there would be a significant benefit from the scheme in helping to alleviate rising energy costs, thereby making a significant contribution to the Councils’ stated objective of alleviating fuel poverty. Fifty seven per cent of Council properties house residents in receipt of Housing Benefit and as a proxy indicator of fuel poverty, this would equate to assisting approximately 1,200 homes with known financial issues. Significant household expenditure that would otherwise go to electricity companies would also be available to the local economy.
- 9.16 Based on the current carbon mix of the National Grid electricity (as estimated by the Carbon Trust) it is estimated that the scheme would result in a reduction in Carbon dioxide emissions (CO₂e) of 1,950 tonnes per annum and be the equivalent of providing enough renewable electricity to power over 1,300 homes. Over the lifespan of the project this would mean that the Councils would directly assist in the removal of approximately 39,000 tonnes of CO₂e from the National Grid mix. Whilst not part of our Corporate Greenhouse Gas Emissions inventory, as defined by the Department of Energy and Climate Change, this would be a tangible and significant contribution that the Councils could make to reducing the carbon impact of the districts and to achieving their stated objective of protecting the environment.

Table 2: Reduction in Carbon dioxide emissions

Authority	Annual CO₂e reduction (tonnes)	Lifespan CO₂e reduction (tonnes)
Babergh district	1,135	22,700
Mid Suffolk district	817	16,340
TOTAL	1,952	39,040

- 9.17 It is proposed to utilise an existing procurement framework managed by the London Housing Consortium which provides all hardware, installation, project management, tenant liaison and monitoring for a fixed price. The approved Framework Agreement is a tried and tested mode of procurement, which allows for a more rapid installation programme and provides value for money and also speed of delivery.

- 9.18 If approval is given to proceed with the scheme the installation of solar panels could commence in June 2014 and proceed at a rate of approximately 40 properties per week, subject to weather and unforeseen circumstances.
- 9.19 It is fully acknowledged that not all Council tenants would be able to benefit from the scheme. However, there is already significant variation within the Council housing stock e.g. many properties have already been fitted with renewable energy sources in the form of Air Source Heat Pumps, boiler age, double glazing, garden size etc. In time, the inclusion of solar panels is likely to be regarded as another option within the choice-based letting system.
- 9.20 The Councils are also always seeking alternative ways to find greener energy solutions and saving residents money. Examples include the Councils' programmes of installing Air Source Heat Pumps, loft and wall installation in their properties. Options for installing other forms of renewable technologies in Council houses that are not suitable for solar panels are also under consideration.

10. Appendices

None.

11. Background papers

None.

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