Committee:	**Environment**	**Agenda Item**
Date:	10 November 2009	**7**
Title:	Outsourcing the Carbon Management Programme for the Council Estate	
Author:	**Jake Roos, Energy Efficiency Surveyor, 01799 510511, Roger Harborough, Director of Development, 01799 510457**	Item for decision

Summary

The council has a made it a corporate priority to reduce its carbon footprint, and has a target of 25% reduction over 5 years. 2 years in, progress has been 8.6%. The carbon management programme is run in-house by the Energy Efficiency Surveyor. Progress is incremental mainly due to limited staff resource (0.4 FTE), and Jake Roos the present Energy Efficiency Surveyor is leaving the council on 8 January 2010. The Council needs to continue make carbon savings and associated financial savings. It also needs to bring ageing heating systems up to date for maintenance reasons.

Schneider Electric Strategic Building Solutions (formerly TAC Strategic Building Solutions) offers an outsourced energy saving contract model that addresses the drawbacks of the current approach and such a model has the potential to help us make more rapid financial and carbon savings through energy efficiency and renewable energy projects in the council estate. This would make an important contribution to achieving our reduction target.

The Strategic Management Board endorsed this proposal at their meeting on 21 October 2009.

Recommendations

That the Council procure an outsourced carbon management service which includes the features of upfront investment, rapid implementation and a guaranteed level of savings

Background Papers

TAC pre-study report on Uttlesford District Council.
UDC / TAC workshop slides (held 25/08/2009)

Impact

Communication/Consultation	Key staff including the Director of Operations, the Head of Housing Management, Chief Finance Officer and the Housing Repairs Manager have been involved throughout the development of this project.

Community Safety	None
Equalities	None at this stage. Equalities information will be sought on prospective service providers as part of the procurement process. An EIA will need to be carried out on the project if it goes ahead.
Finance	The Chief Finance Officer has been involved in the development of these proposals and financial implications are dealt with in the body of the report.
Human Rights	None
Legal implications	All relevant procurement rules must be abided by in acquiring this service. The Essex Procurement Hub is being used to advise and assist with the procurement process.
Sustainability	Positive impact – progress with energy conservation and carbon reduction from council buildings would be accelerated. The sustainability of prospective service providers would be assessed as part of the procurement process.
Ward-specific impacts	None
Workforce/Workplace	Outsourcing this work would lead to a review of the Energy Efficiency Surveyor post

Situation

1. The Council's Carbon Management Programme currently is directly organised by the Energy Efficiency Surveyor, who spends approximately 40% of his time operating it. With regard to council buildings, this involves gathering information on the energy performance of the estate, identifying projects, assembling quotes and business cases for them, managing their implementation and monitoring the results. These projects are paid for with 50% interest-free match funding from Salix, which requires every individual project meets a 5-year simple payback from energy cost savings, and that the savings from these projects are captured to replenish the energy efficiency fund. Although this approach has proven to be reasonably successful over the past 2 years, there are drawbacks, namely:

    - The rate of implementation of projects is constrained by the amount of time the Energy Efficiency Surveyor can devote to it among other competing priorities, and the present Energy Efficiency Surveyor is about leave the Council on 8 January 2010, meaning his technical expertise would need to be replaced. Furthermore savings could be made sooner if projects could be implemented more rapidly.

- The rules associated with Salix prevent the cross-subsidy of projects and encourage 'cherry-picking' the fastest-payback projects. However, we need deeper cuts in emissions than this 'low-hanging fruit' can provide, to achieve our carbon reduction targets. Furthermore a 5-year simple payback is effectively a minimum 20% annual rate of return on investment – a far more stringent criterion than would be required of other investments.
- The risk that projects do not deliver the savings that are originally initially estimated is presently carried by the Council.
- Salix funding cannot be used for water efficiency projects, and this area of resource use needs attention.

A different approach

2. An alternate approach that addresses these drawbacks is proposed. Schneider Electric offers a model for outsourced energy and water management which is new to the UK but tried and tested in other countries. For a one off capital investment, which includes management costs and profit margin, a package of carbon reduction saving projects is rapidly implemented in an organisation's estate and a certain level of energy savings guaranteed. The energy use baseline, measures package, guarantee period and savings level is agreed as part of the contract negotiations. If consumption should go above the agreed savings level, the service provider is liable and compensates the client for the financial loss and takes corrective action (which might mean further investment in measures) to bring the savings level back to where it should be. Water saving measures can also be included in the package of works.
3. This approach address all the drawbacks described above, and it removes the potential sources of conflict in other outsourcing models based wholly on the service provider taking cut of savings made. Unlike those models there are no large ongoing, variable payments from the client (a potential source of dispute), and as the service provider will be liable if savings do not exceed the agreed level, it encourages them to be conservative in their estimated savings, meaning the actual outcome is likely to please all parties (better savings than target).
4. Provision can be made so if savings exceed a certain level, savings are split between the client organisation and the service provider, which gives incentive to the provider to make additional effort and investment if this is cost-effective. This is optional but should be considered.

Business case

5. Schneider Electric Strategic Building Solutions was commissioned to carry out an initial study of our estate to estimate its potential for savings relative to a certain level of investment. They surveyed a sample of buildings and then extrapolated the results be equal to UDC's entire built estate. From this they estimated that **for a total investment of £385K, £41K annual savings (at current prices) and a 10 -15% carbon emissions reduction could be achieved.**

6. Split business cases for General Fund (Fig 1) and HRA (Fig 2) are shown on the next page. Calculations and assumptions are in Appendix A and B. These investments and their returns meet the financial criteria set by the Chief Finance Officer, in Appendix C. It should be noted that the business cases do not include the usual 20% contingency set out in the financial criteria because the savings level from the project is guaranteed, and therefore the 'risk premium' is covered as part of initial investment.
7. The indicative business case assumes that borrowing will be required to finance the capital expenditure, as it is forecasted that capital receipts will be fully utilised by 2010. In the event of new capital receipts arising above forecasted levels, or slippage

of programmed capital expenditure, dependency on borrowing would be reduced, which would improve the net revenue position.

Types of work

8. The types of work recommended in the pre-study are exclusively efficiency and management measures, namely new boilers, improving control and integration of heating, cooling and ventilation equipment with building energy management systems (BEMS), pipe insulation, lighting upgrades and automatic meter reading. Renewable or low carbon energy (solar panels, heat pumps, wood boilers, combined heat and power) was not part of the pre-study but could be included. It should be noted that most of the boilers and controls at the sheltered housing sites are 25 – 30 years old and are at or are nearing the end of their useful life, and the proposed project would address the capital investment that inevitably will be required to keep the sites working.

Pre Study Findings

General Fund

Annual Savings:	**£5,400**
Total Investment:	**£55,000**
Capital Cost:	**4.0%**
Annual Energy Price Increase:	**10%**
CRC savings	**£12 per tonne CO_2**

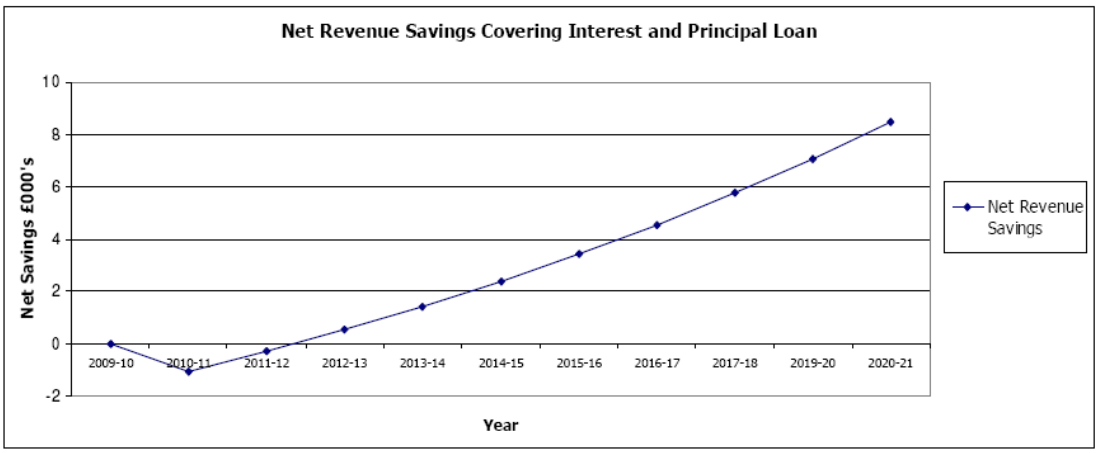

Fig 1: Net revenue savings to General Fund over 10 years – approximately £32K.

Pre Study Findings

Sheltered Housing Sites

Annual Savings:	**£36,000**
Total Investment:	**£330,000**
Capital Cost:	**4.0%**
Annual Energy Price Increase:	**10%**
CRC savings	**£12 per tonne CO_2**

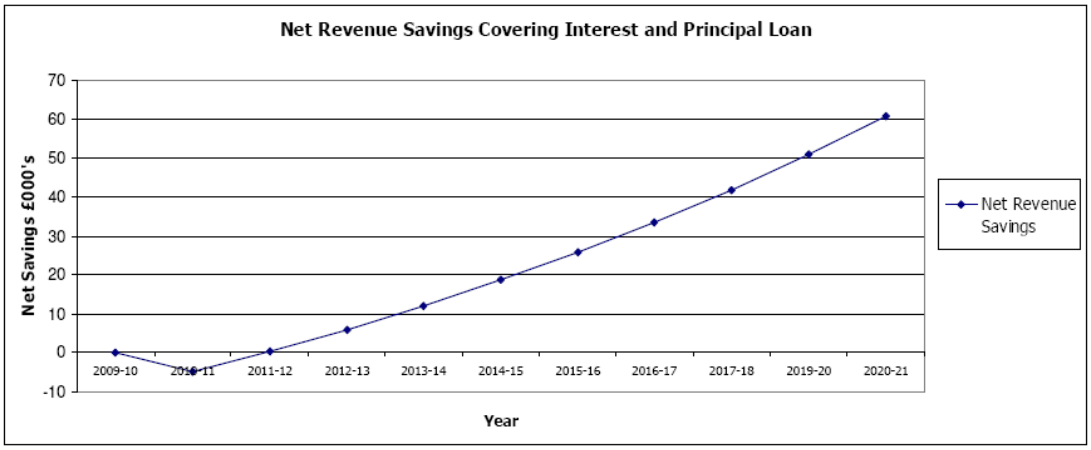

Fig 2: Net revenue savings to HRA over 10 years– approximately £245K.

Ongoing costs

9. These calculations do not include a retainer for the service provider to support the contract. Schneider Electric SBS have provided an indicative cost for this kind of support - £2 – 3K per year. This would include:
    - Automatic meter reading linked to online performance monitoring software
    - Regular reporting and meetings with customer to review performance - areas of underperformance, reasons and fixes
    - Quarterly or half yearly strategic meeting to discuss overall strategy
    - Ongoing tuning of heating systems via the Internet
10. It should be noted that these activities are all things that the Council should be doing to support its carbon management programme anyway regardless of how that programme is delivered or by whom. Naturally a planned, preventative and reactive maintenance contract would continue. Maintenance costs should reduce as a result of having newer equipment.

Impact on targets

11. 10 -15% reduction in CO_2 emissions will have a significant impact on overall emissions, as emissions from the Council's estate represent 61% of the total. If the Council can reduce its emissions in other areas by a similar percentage, the overall target of 25% reduction is within reach, given that an 8.6% reduction has already been achieved. If this level of gains cannot be made in other areas, then greater savings will need to be made in estate management to compensate. This might mean adding additional measures to the package thus far described in the pre-study (e.g. renewable energy). Ideally, a more detailed study of potential projects and their likely savings in the other areas of emissions is needed, so the package of measures carried out in the estate can be adjusted if necessary. The impact of changes to the Council estate (i.e. buildings acquired or sold) needs to be factored in also. That said, the greatest possible carbon reduction that is technically feasible and fits within the Council's financial criteria should be sought.

12. It should be noted that carbon reduction efforts have not ceased while this new approach has been investigated. Projects continue to be implemented and developed, namely upgrading boiler plant and controls at the London Road Office, Walden Place, Hatherley Court, John Dane Player Court, Saffron Walden Museum, Saffron Walden and Dunmow Day Centres. LED lighting at the Museum and the transition from our old servers to low-energy 'blade' servers, with associated down-sizing of air conditioning, are presently being implemented. Two further major plant room refurbishment projects (at Alan Hasler House and Broomfields) have been developed to the point of being ready to go out to tender – these can be taken forward relatively quickly if the outsourcing model proposed in this report is not taken on.

Track record of model

13. The proposed contract structure is tried and tested, although it is new to the UK. Strategic Building Solutions is a satellite division of Schneider Electric that has existed since 1992 and has completed over 550 performance-based projects worldwide with public sector agencies and higher education bodies in the US and Scandinavia. The University of Sheffield is moving forward with this contract structure with Schneider Electric. Case-studies on examples from the US can be found at http://www.tac.com/Navigate?node=6550.

Effect on Salix ring fenced energy efficiency fund

14. The possibility of using Salix funding to carry out an investment in energy efficiency was explored. However Salix Finance are not willing to adjust their criteria, and the obstacles described earlier cannot be overcome unless they do so. Therefore, unless they change their position, we will not be able to make use of this. The existing ring-fenced fund, which has used 50% Salix money to pay for our carbon management projects carried out so far, should be wound down if there is no further use for it (i.e. if we proceed using the proposed contract structure). Unspent Salix money (£44K) will need to be returned and Salix money used for projects will need be repaid to Salix as the savings from those projects come in (£111K). As only 50% of savings from a project 'belong' to Salix (£56K), there is flexibility as to how we manage the other 50% (£56K): reserve it to support the carbon management programme (e.g. contract support costs, other energy or water saving projects that present themselves after outsourced service provider has finished their implementation phase), pay Salix back more quickly, or simply use it to relieve pressure on revenue budgets.

Review of Energy Efficiency Surveyor post

15. As the present Energy Efficiency Surveyor is leaving, outsourcing of carbon management gives an opportunity to reassess the role and consider how resources can best be aligned with corporate priorities.

Procurement

16. Because of the size of this contract it is subject to the full formal procedure for procurement under EU regulations. A competitive tender will give companies other than Schneider Electric an opportunity to bid and win the work. Because of the official waiting periods for responses that are part of the EU procurement process, it is unlikely the contract could be awarded before February 2010 at the earliest. The procurement process represents the second 'yes/no' in the diagram below (Fig 3). If and when an appointment is made, the service provider would carry out an intensive detailed study of UDC's estate would to develop the project and the parameters of the guarantee in partnership with the Council. Following this there still an opportunity

to for the Council to abort, although the company appointed would need to be compensated for its work developing the project further.

Fig 3: Programme development diagram

Risk Analysis

Risk	Likelihood	Impact	Mitigating actions
Energy baseline hard to establish	Low	High	Our baseline is already well established – continuing current practices should ensure this is up to date for any contract start.
Procurement process does not yield suitable service provider	Low	High	In addition to Schneider Electric SBS, there are other large companies offering services of this kind (e.g. Dalkia), who may be interested in adopting the proposed contract structure.
Council decides not to go ahead with project after appointing a service provider (third yes/no in diagram above)	Low/medium	High	The Council can stop the procurement process at anytime. Should we want to halt following an appointment, we will still be able to use any detailed survey work done ourselves. It may be prudent to keep some in-house carbon management projects developing in parallel, so the programme does not stall entirely should the move to outsourcing be aborted.
Energy prices stay low for 5-10 years	Very low	Medium/high	Strong upward pressure in energy prices from the present low is likely. However as the project has considerable net savings this should provide a cushion against this.
Disputes emerge over responsibility for increased energy use if this breaches the	Low/medium	Medium/high	Special attention should be given to the conditions of the guarantee to ensure it covers issues such as changes to extent of UDC's estate,

guaranteed limit			environmental conditions in buildings, differing weather conditions between years and other potential sources of variation in energy use not related to energy efficiency or use of renewables.