

DECISION MAKER:	OVERVIEW AND SCRUTINY MANAGEMENT COMMITTEE
SUBJECT:	A CITY WIDE APPROACH TO ENERGY
DATE OF DECISION:	11 OCTOBER 2012
REPORT OF:	THE LEADER
STATEMENT OF CONFIDENTIALITY	
None	

SUMMARY:

There is an opportunity for the Council to develop a strategic approach to energy which would include the development of a strategic delivery programme of suitable schemes to support the Council's strategic objectives.

RECOMMENDATIONS:

- (i) That the Committee notes the report.

REASONS FOR REPORT RECOMMENDATIONS:

1. In response to a request from the Chair of the Committee.

DETAIL:

2. The UK is now a net importer of energy and is experiencing the impact of significant fluctuations in global energy markets and political uncertainties. The UK energy generation and transmission infrastructure also requires significant investment. These factors combined are leading to increased energy price uncertainty and significant rises in the costs of energy for consumers.
3. As a community leader the Council has a role to play in addressing the risks of rising energy costs, reduced energy security, and the cost of carbon, for its citizens and businesses in the city.
4. There is an opportunity for the Council to lead the development of a strategic energy programme for the city. The Council's role would be one of delivering schemes, and to encourage and support appropriate commercial energy investments.
5. This can be achieved through the generation of electricity and/or heat on a district or community level as an energy supplier, or by making use of existing energy sources such as heat from industrial or waste processes.
6. Local energy generation can also drive economic growth and jobs. A strategic approach to energy would potentially provide for additional future revenue streams and also become a mechanism through which the Council attracts new businesses to the city.
7. Providing cheaper energy and improved energy efficiency would also work to overcome fuel poverty particularly in those areas of the city occupied by the most vulnerable.
8. The Council's national reputation as a leader in energy and sustainability would be enhanced further through the adoption of a strategic approach to delivery.

A Citywide Approach to Energy

9. A strategic approach to the energy needs of the city would ensure greater economies of scale in maximising energy provision to homes and other buildings, thereby adding value to individual schemes and for the city as a whole. By investing in energy on a large scale, there is an opportunity to reduce the reliance on energy supplies from third parties and to develop a more sustainable pattern of use over time for the city.
10. Such an approach also proposes that the Council has a role in energy projects and in energy use which are wider than its own built estate. The strategic approach would build on investment plans for Council owned buildings throughout the city, for example: housing, schools and care homes. This would enable planned delivery within specific areas and strengthen the case for connecting new or existing schemes with new developments and non Council owned buildings. Whilst recognising that economic returns and direct savings might be lower for some of these projects, the economic, environmental and social benefits to the city are other key drivers for consideration.
11. In summary the main benefits for the Council in developing a city wide approach to energy are as follows:
 - (i) Ensure secure energy supplies for the city
 - (ii) Energy cost stabilisation or reductions for consumers
 - (iii) Significant reductions in Carbon emissions
 - (iv) The potential for long term and sustainable revenue income for SCC to invest in services or reinvest in further revenue earning projects
 - (v) Helps to tackle fuel poverty
 - (vi) Improved Energy performance for LA owned / operated buildings including reductions in Carbon Reduction Commitment (CRC) targets and costs.
 - (vii) A boost to economic activity and jobs, and increased investment into the city
 - (viii) Maintains the national recognition of Southampton as a leader in this area.

District Energy

12. District Energy (DE), also referred to as local energy networks, provides for local (de-centralised) generation and supply of heat and power to supplement or replace the traditional centralised energy infrastructure (the national grid for electricity and gas supply). DE heat and power is currently provided using a number of fuel sources including gas or biomass solutions.
13. DE provides the opportunity for significant cost savings and an effective reduction in CO₂ emissions and is considered by Government as a key solution to delivering low carbon energy in areas with high heat demand density such as apartment blocks, schools, hospitals, commercial centres and public sector estates.
14. Part of a strategic approach would involve reviewing current district energy schemes operating in the city, with the aim of improving operational efficiencies and determining opportunities for future expansion.

15. Another stream of work is to examine the feasibility of capturing heat from the Marchwood “Energy from Waste” (EfW) plant as a potential source of energy for the city. Making effective use of industrial heat sources in the city would be another consideration to be explored.

Funding Opportunities

16. A strategic programme for energy will require significant capital funding, either by the Council or through private sector investment. In some cases funding by the Council would return a long term income stream. In other instances such investments would be considered as infrastructure investment to meet wider community, environmental or economic objectives.
17. Some of these investments could be met through prudential borrowing. This has the benefits of setting up the infrastructure funded from the Housing Revenue Account (HRA) capital programme that could provide wider benefit to private residents and business/industry in the local area. There is also work being progressed with the Local Government Association and a group of local authorities to determine the benefits of bond type funding for infrastructure with a collective of councils to create the scale for financing infrastructure projects. European funding sources will also be explored where considered appropriate.
18. Investing in a number of district energy schemes in the city would also ensure that sufficient economies of scale are created for investment with the potential to reduce overall programme costs and the cost of borrowing. Adopting a strategic approach to delivering energy schemes in the city could also attract other complimentary funding opportunities, including heating and insulation using the new Energy Companies Obligation (ECO) and the proposed Green Deal, or through economic development and estates renewal funding.

Policy Background

19. Southampton City Council’s Energy Vision 2007 sets out objectives to supply a high proportion of the heat and energy requirements locally using low carbon technology through an interconnected city wide heat supply network.
20. The Carbon Reduction Policy and Action Plan 2009 aims for a 40% CO₂ reduction by 2020, which includes plans to replace oil and gas fired boilers with biomass and roll out of CHP in the Council’s properties.
21. The Low Carbon City Strategy 2010 has overall targets and delivery plan that includes DE and heat network provision throughout the city to achieve its low carbon city aims.
22. Department of Energy and Climate Change (DECC) aims to provide future incentives and changes to legislation to help achieve the Government’s objective to provide low carbon heat via energy networks in suitable urban areas. DECC have been clear that Local Authorities have a key role to play in the development of local energy networks that will enable the UK to meet the legally binding 2050 CO₂ reduction target of 80% by 2050.
23. In addition to the above, new guidance has been issued under the Home Energy Conservation Act (HECA), which requires local authorities to publish a report on their plans to achieve improved energy efficiency across all housing tenures, by 31 March 2013. Council’s will be required to identify practicable and

cost-effective measures likely to result in significant energy reduction in all residential accommodation in their area and to consider the role key local partners, such as social housing providers and community organisations, can play in supporting their plans.

24. Local energy generation including DE can play an important part in meeting the HECA requirements whilst also incorporating other energy efficiency measures such as insulation and other heating measures where appropriate, making the best use of the financial incentive schemes such as the Renewable Heat Incentive (RHI) and the new Energy Company Obligation (ECO), which will replace the previous CESP and CERT utility funding from January.
25. Acting corporately across the Council will also ensure a clearer understanding of which development sites are within reach of connection to a DE scheme and will be able to ensure developers are encouraged to connect to relevant DE schemes through the planning process. There have previously been several large sites that have missed the opportunity to be used a catalyst for significant DE networks.

Current Developments

26. There are currently five DE schemes in the city, which include: the City Centre, Centenary Quay, Holyrood Estate, Southampton University and the University Hospital of Southampton. These five DE schemes reduce Southampton CO2 emissions by circa 20,000 tonnes per annum, which equates to 2% of the total. This equates to in excess of £4 million savings for the city per annum.
27. The university and hospital schemes are public sector owned but only supply those specific sites. The hospital scheme is operated and maintained by private contractors. The Centenary Quay scheme is operated by EON district energy under contract with developer Crest Nicolson. This scheme supplies domestic and commercial users with heat and power on the development site.
28. Cofely District Energy (CDE) finance, own, operate and maintain the City Centre and Holyrood schemes under a subsidiary Energy Services Company (ESCO) - Southampton Geothermal Heating Company (SGHC). The scheme customers cover 45 major buildings including IKEA, John Lewis, BBC, Scandia Life and us.
29. In 2010 the Sustainability Team and Cofely District Energy undertook a heat mapping exercise to assess financial viability of further district energy schemes in the city.
30. The heat mapping exercise identified areas of the city where feasibility work and business cases could be produced for DE schemes in the city. An initial desk top assessment has been carried out that identifies Council owned social housing areas that would suit DE. This assessment backs up the findings from the heat mapping exercise and also recommends making best use of grant funding through the new Energy Company Obligation (ECO) to support a DE programme. The areas highlighted include the proposed regeneration of estates areas and existing social housing in for example, Weston Shore, Thornhill, and Millbrook. There are opportunities to create larger DE networks by incorporating public sector buildings, including schools and leisure facilities, along with larger commercial developments.

31. The heat mapping did not include the potential for recovering waste heat from processes such as, for example, the Marchwood Energy from Waste facility, or from manufacturing processes in the city. Further feasibility work would be required to determine the potential benefits of utilising heat from these sources. This would be carried out as part of the development of the strategic energy programme.

Next Steps

32. A report is being prepared for Cabinet seeking approval for the commencement of a strategic energy programme for the city. This report would outline the key risks and the resource implications of implementing a large programme of this nature.
33. A programme of schemes will be drawn up for the city and investment grade business cases will be produced for individual schemes for Council approval. In addition, a Council wide stakeholder group will be set up to ensure the Council wide objectives are met.

RESOURCE/POLICY/FINANCIAL/LEGAL IMPLICATIONS:

Capital/Revenue:

34. Work is being progressed to identify suitable funding streams for a strategic delivery programme and to fund individual schemes.

Property/Other:

35. A strategic programme for energy has major implications for the design, development and maintenance of the Council's building estate.

LEGAL IMPLICATIONS

36. The legal implications will arise from the development of the strategic programme and individual developments.

POLICY FRAMEWORK IMPLICATIONS

37. The policy implications of this approach are summarised above and will be detailed more fully in the proposed Cabinet report.

Further Information Available From:

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