

## HAMPSHIRE COUNTY COUNCIL

### Decision Report

<b>Decision Maker:</b>	Executive Member – Environment and Transport
<b>Date:</b>	6 November 2012
<b>Title:</b>	District Energy Network for Winchester
<b>Reference:</b>	4337
<b>Report From:</b>	Director of Economy, Transport and Environment

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#### 1. Executive Summary

1.1. The purpose of this report is to seek Executive Member approval for further work to progress a District Energy Network (DEN) for Winchester.

1.2. This report seeks to:

- Set out the background to the project to date;
- Consider stakeholder involvement;
- Secure approval to build the stakeholder partnership required to deliver the next phase; and
- Secure approval to prepare an investment grade business case and delivery plan, through the appointment of a project management or partner resource with the relevant expertise.

#### 2. Contextual information

2.1. In February 2012, Cabinet agreed an interim energy strategy that allowed for several pilot projects and feasibility studies to be undertaken. The DEN for Winchester project was one of these projects. Cabinet agreed that business cases for these projects would be developed in due course.

2.2. The Energy Strategy is aimed at enabling the County Council to take a leadership role on energy, both as a large employer, and purchaser of goods and services, and as a community leader. This is becoming increasingly important as current trends such as increasing energy use and rising energy costs (and associated carbon and other taxes), combined with increased threats to security of energy supply, present both individual and accumulative risks to the effective and efficient running of the County Council.

- 2.3 As a pilot project within the strategy, a District Energy Network in Winchester will help reduce energy consumption and cut the energy costs of major organisations in Winchester – including the County Council – and will contribute to the reduction of the city’s carbon footprint. The scheme will ensure access to secure, affordable and low-carbon energy for large scale users within Winchester. Developing the scheme will also help grow the expanding in-house technical knowledge of alternative energy solutions within the County Council, increasing the ability to adapt to the changing energy environment.
- 2.4 In 2010, Hampshire County Council and Winchester City Council jointly commissioned the consultants Rolton to prepare a high-level feasibility study to determine the viability of a district energy network in the city of Winchester. The feasibility study concluded that a DEN in Winchester would help reduce carbon emissions in the city and also help to reduce spend on energy for off-takers and contribute to ensuring security of energy supply.
- 2.5 Subsequently the consultants Mace were commissioned to produce a more in-depth analysis of the technical and financial feasibility. This study refined the earlier work and added further credence to the earlier report. It concluded that there is an opportunity for a scheme in the west of the city encompassing the Hospital, University and Prison to be developed almost immediately. It also laid the foundations to further the option of a separate scheme focused on the County Council’s buildings at the Castle Complex, subject to a few refinements in heat loads. The basis for the viability of this ‘City’ scheme being the financial savings it will directly contribute to the County Council.
- 2.6 Concurrently to the development of the technical and financial work, stakeholder interest in the potential ‘West’ scheme has been explored and progressed. An informal ‘stakeholder group’ has been established and has played a key role in the development of the West scheme, particularly through supplying of data. The Hospital, University and Prison, as well as the College and Winchester City Council have all been involved (the latter two in support of a City scheme), and their future involvement and roles is one of the key work areas to progress.
- 2.7 Two methods of delivery have been identified for the possible implementation of the schemes. These broadly involve: a commercial route, involving a private sector partner providing all or a significant percentage of the finance; or a public sector route, whereby the County Council looks to develop and deliver the schemes through public sector funding and financing opportunities. The two options obviously involve different levels of risk and control for the County Council.
- 2.8 Both options are considered viable. However, development of the public sector approach requires additional specialist work:
- Examination of the legal structures surrounding the formation of an Energy Services Company (ESCO);

- Analysis of how this ESCo will deliver and operate the scheme;
- What the relationships with stakeholders/customers will be; and
- Achieving a full understanding of all the implications surrounding the use of public finances to fund such schemes.

### **3. Conclusions and Further Development**

- 3.1 In summary, whilst the project has progressed sufficiently to give a detailed understanding of the feasibility of delivering such schemes, additional work is now required to take the project to the next stage - the development of an Investment Grade Business Case. This will require the appointment of an experienced Project Manager, to work alongside council officers and provide the skills and expertise that the County Council currently does not have.
- 3.2 The role of the project manager will be to coordinate the further technical engineering analysis of both the West and the City schemes, coordinating the procurement arrangements for set-up and delivery of an ESCo. County Council officers will continue to play a key role in progressing the scheme alongside the project manager particularly in relation to stakeholder relations and possible company structures.
- 3.3 Successful delivery of a scheme will require the building of an effective stakeholder 'partnership'. Stakeholder involvement and 'ownership' will be vital to ensure that the final scheme is effectively designed and the appropriate delivery structure established. Full cooperation and involvement from all parties will be required and so a formal agreement/working relationship between all parties essential. This agreement is likely to involve some kind of financial contribution from all relevant partners for the next element of the work. Therefore, this report also seeks permission for the negotiations and process for creating that partnership to begin.
- 3.4 Further detail of the work undertaken to date can be found in Appendix 1 of this report.

### **4. Recommendations**

- 4.1 That the next phase of the scheme to develop the West and City Winchester District Energy Network be commenced.
- 4.2 That authority be given to the Director of Economy, Transport and Environment to engage in further discussions with relevant stakeholder partners to secure sign-up to the first phase of delivery.

**CORPORATE OR LEGAL INFORMATION:****Links to the Corporate Strategy**

<b>Hampshire safer and more secure for all:</b>	N/A
Corporate Improvement plan link number (if appropriate):	
<b>Maximising well-being:</b>	yes
Corporate Improvement plan link number (if appropriate):	
<b>Enhancing our quality of place:</b>	yes
Corporate Improvement plan link number (if appropriate):	

**Other Significant Links**

<b>Links to previous Member decisions:</b>		
<u>Title</u> Interim Energy Strategy	<u>Reference</u> 3548	<u>Date</u> 27 February 2012
<b>Direct links to specific legislation or Government Directives</b>		
<u>Title</u>	<u>Date</u>	

**Section 100 D - Local Government Act 1972 - background documents**

The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)

<u>Document</u>	<u>Location</u>
None	

## IMPACT ASSESSMENTS:

### 1. Equalities Impact Assessment:

- 1.1 The proposals in this report have been developed with due regard to the requirements of the Equality Act 2010, including the Public Sector Equality Duty and the Council's equality objectives. The assessment of the impacts for the *Ensuring that Hampshire is Energy and Climate Change Resilient* service area can be found at:

<http://www3.hants.gov.uk/equality/equality-impact-assessments/cx-pu-eqimpact-envi.htm>

- 1.2 It is considered that the issues covered by this report will not have impacts requiring further specific actions by the Council above those already established in its existing policies and working procedures.

### 2. Impact on Crime and Disorder:

- 2.1. It is not considered that the proposals will have any adverse crime and disorder impacts.
- 2.2. However, having a safe and secure local energy supply may help to ensure that, for example, street lighting, operates efficiently and effectively, with associated positive effects on levels of crime and disorder.

### 3. Climate Change:

- a) How does what is being proposed impact on our carbon footprint / energy consumption?

The delivery of a City based District Energy scheme will directly lead to a reduction in the carbon emissions of the County Council. The West scheme will contribute to a greening of the City of Winchester, by lowering the emissions of the large public sector organisations.

- b) How does what is being proposed consider the need to adapt to climate change, and be resilient to its longer term impacts?

Hampshire County Council is heavily reliant on grid-based fossil fuel imports for its energy. Climate change has the potential to significantly impact upon the energy sector. Changes to climate and severe weather events may affect the UK's capacity to generate energy and distribute power and may alter patterns of energy consumption and use. Because energy markets operate in a global context, climate change impacts elsewhere in the world that significantly impact global energy supply may also have the potential to indirectly affect Hampshire.

By taking action to increase security of local energy supply, and reducing our reliance on national infrastructure, Hampshire will be better placed should climate change lead to interruptions of energy supply.

It will also help to ensure business continuity and the maintenance of service delivery in the case of extreme weather events.

## **Winchester District Energy - Supplementary Report**

### **1. Contextual information**

- 1.1 In 2010, Hampshire County Council and Winchester City Council jointly commissioned the consultants Rolton to prepare a high-level feasibility study to determine the viability of a district energy scheme in the city of Winchester. The feasibility study concluded that a DEN in Winchester would help reduce carbon emissions in the city and help to reduce spend on energy for off-takers and contribute to ensuring security of energy supply. Subsequently, the consultants Mace were commissioned to produce a more in-depth analysis of the technical and financial feasibility of such a scheme.
- 1.2 The Mace study is predicated on a 'commercial' delivery scenario which is the most common delivery route for UK district energy schemes. The 'model' is based on DE schemes operated either entirely, by, or in partnership with a private sector partner. This allows access to private finance sources, but requires the scheme to operate an IRR return of at least 10% to satisfy commercial return expectations.
- 1.3 Mace modelled DENs within two areas of Winchester: a West scheme (University, Hospital, Prison); and a City scheme based around the County Council's QEII Court complex. In addition, a scheme was also modelled based on interest from Winchester College. A map of these networks is found at the end of this appendix.
- 1.4 The three schemes were modelled with the majority of appropriate buildings in those areas connected. The resulting proposal provides carbon savings of around 30% per annum for the West scheme, 26% for the City 1 scheme (14% for City 2<sup>1</sup>), and 22% for the College scheme. Cost savings for off-takers in the West scheme are in the region of 3% and 6% in year one. Cost savings for the City scheme for the County Council are in the region of £80 - £90k per annum.

### **2. Delivery**

- 2.1 The Mace report recommends the establishment of a Special Purpose Vehicle (SPV) to provide governance and funding, with an Energy Services Company (ESCO) to run the scheme. This SPV/ESCO structure allows stakeholders a role in governance through the partnership, but allows HCC to maintain any benefits in terms of income and control. There would also be an option for relevant stakeholders to invest through the SPV should that be appropriate.
- 2.2 There are a number of 'structures' which centre on the County Council delivering the scheme. These need to be further explored and the implications of each assessed. In addition, Thamesway will also be providing some advice on public sector delivery that will need to be incorporated. Part

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<sup>1</sup> City 2 excludes the leisure centre and Winchester School of Art.

of developing that structure will require input from stakeholders. An effective stakeholder 'partnership' will be vital to ensure that the final scheme is both effectively designed and the appropriate delivery structure established. Full cooperation and involvement from all parties will be required and so a formal agreement/working relationship between all parties essential. Further engagement with potential 'partners' in the West scheme is therefore needed, to agree sign-up and contributions to the scheme.

- 2.4 A project management resource needs to be appointed to enable the next stages of the project to be progressed. Identifying the most suitable resource is crucial. This process will include a procurement exercise which will help inform the decision whether to enter into some form of technical/financial partnership. The project manager would provide the relevant expertise to support the development of the investment grade business case and delivery plan for the delivery of both the West and City networks. It will play a significant role in progressing the delivery structure and securing the contracts for the desired ESCo operation.
- 2.5 The successful delivery of a scheme in Winchester will stand the Council in good stead to identify, scope and deliver opportunities elsewhere in the county in the future. This will also enable the County Council to identify opportunities where the development of a District Energy Network may add credence to the investment in other County Council projects.

### **3. Summary and Conclusions**

- 3.1 The Winchester District Energy scheme will be one of the first energy projects that allow Hampshire County Council to learn and develop on energy service delivery. This will contribute to the emerging strategic goal of operating as an energy service provider in some shape or form. The project will allow the County Council to learn valuable lessons and gain experience in a number of vital areas that will contribute to this goal: the setting up of an Energy Services Company; the letting of contracts for design and build; and, the management of retail and commercial functions of energy delivery.
- 3.2 Executive Member approval is sought for the next phase of development of the West and City networks to be included in the County Council's Capital Programme for 2013/15. Implementation leading to operation of a successful scheme is likely to take in the region of 2 to 3 years. A full investment grade business case is required which will be presented for member sign off, along with a detailed delivery plan for the scheme in 2013.
- 3.3 Executive Member approval is also sought to begin to establish more formal arrangements with the organisations involved in the West network in order to secure commitment to the first phase of delivery. This will include commitment from stakeholders to contribute towards the cost of delivering the next phase of the project.

Map of the Networks:

