

**EXETER CITY COUNCIL****SCRUTINY ECONOMY COMMITTEE  
4 SEPTEMBER 2008****EXECUTIVE  
16 SEPTEMBER 2008****2008 CLIMATE CHANGE STRATEGY AND ACTION PLAN: PROPOSED EXETER  
UNIVERSITY FEASIBILITY STUDY****1.0 PURPOSE OF REPORT**

- 1.1 To seek Executive approval for the Centre for Energy and Environment (CEE) at Exeter University to undertake an initial feasibility assessment of options for a) low carbon energy solutions in those parts of Exwick without a mains gas connection and b) shared energy solutions for the City's industrial estates, drawing on a survey of energy use in these areas.

**2.0 BACKGROUND**

- 2.1 The City Council approved a Climate Change Strategy and Action Plan for Exeter in January 2008, following discussion at Executive on 22 January 2008. The Action Plan identifies, among other actions, two studies to be led by the City Council:
- Undertake a survey of the Exwick area to assess the viability of a renewable energy replacement for Economy 7 heating
  - Undertake mapping of main industrial sites to identify patterns of energy use and explore opportunities for shared supply through decentralised (local) energy production
- 2.2 Officers from the City Council have asked the Centre for Energy and Environment at Exeter University to produce a proposal for taking forward both study elements. As members of the South West Energy and Environment Group, the City Council is able to call on a preferential academic consultancy rate from the Centre for Energy and Environment at the University. The University have now produced their proposal and subject to the approval of Members, would expect to complete and present results from their study at the start of 2009. The main elements of their work are set out in Annex 1.
- 2.3 Officers have also engaged with 'renewable energy' representatives from the energy company EDF. They are keen to work in partnership with the City Council in relation to this work and are willing to contribute to its cost.
- 2.4 Officers have also discussed the scope of this study with senior representatives from Cyclerval UK and Connective Energy both of whom are working with Devon County Council's waste contractor (Viridor) to identify potential end-users of heat from the proposed Waste-to-Energy plant at Marsh Barton. Both representatives have indicated a desire to work collaboratively with the University for this project.

### **3.0 FINANCIAL IMPLICATIONS**

- 3.1 The total cost for this work is £25,500. EDF are willing to contribute £6,000 towards the cost of this study. A contribution of £5,000 can be made from an Economy and Development Directorate partnership reserve, leaving a deficit for funding of £14,500. Members are invited to agree to the additional funding of this deficit from the general reserve.

### **4.0 CONCLUSION**

- 4.1 Action on Climate Change is a key priority for the City Council. The issues have been brought into even sharper focus of late with significant increases in the costs of centralised energy supply. Local authority leadership and action in this area is important and a strategic approach is required. This exploratory work represents an important first step to understanding what might be possible in the locations outlined, drawing on technical expertise from Exeter University and further developing partnerships with the energy sector.

### **5.0 RECOMMENDATION**

- (i) That Members approve additional expenditure of £14,500 from the general reserve and a contribution of £5,000 from the Economy and Development Directorate partnership reserve to fund feasibility work by Exeter University as outlined above.

**DAVID BETTELEY**  
**DIRECTORATE PROJECTS OFFICER**

**ECONOMY & DEVELOPMENT DIRECTORATE**

**Local Government (Access to Information) Act 1972 (as amended)**

***Background papers used in compiling this report:-***

Climate Change Strategy and Action Plan for Exeter.

## Annex 1

### Strand 1: A Feasibility Study for Carbon Reductions in the Exwick Area of Exeter

Work for Exeter's climate change strategy has identified that the Exwick area of Exeter may have the potential for substantial carbon emissions reduction through the potential application of energy efficiency measures and low and zero carbon energy solutions. The study will identify what types of energy efficiency and low carbon heating schemes may be appropriate

The scope of the work is as follows:

Task
1. Identify clusters of higher carbon emission buildings belonging to the same private or public landlords, or significant non-domestic buildings, and any useful interest from community groups (e.g. Exwick Community Association).
2. Estimate of energy consumption by the above buildings and groups.
3. Develop a shortlist of potential energy efficiency and / or low carbon heating schemes.
4. Outline costing of the schemes.
5. Assess the schemes' feasibility on the basis of the above cost estimates and other factors including the comparative cost effectiveness of low carbon heating and the traditional alternatives.

### Strand 2: Establishing the Potential for Collaborative Energy Use in Exeter's Sowton and Marsh Barton Industrial Estates

Work for the Exeter climate change strategy identified that reducing carbon dioxide emissions from energy use in the non-domestic sector is the highest priority in tackling city wide emissions reduction. One potential opportunity is collaborative measures between businesses to reduce energy usage. This study will identify business energy use in Sowton and Marsh Barton. The larger energy consumers will be identified and their energy use to adjacent businesses analysed. Conceptual shared energy schemes will then be identified.

The scope of the work is as follows:

Task
1. Direct approaches to organisations in Marsh Barton already known or thought to be major energy users, including those identified by RPS in their work for the Exeter EfW Report
2. Compile details of the heat uses & losses + electricity use by the above organisations
3. Presentation or circular (with response details) to Marsh Barton Forum and Sowton Forum on potential opportunities for shared energy schemes. Collaborate with other organisations involved in business consultation work linked to Waste-to-Energy Plant.
4. Direct approach to any significant organisations from whom no response has been obtained.
5. Development of energy scheme concepts, with analysis of their comparative advantages and disadvantages