



Leicester
City Council

**OVERVIEW AND SCRUTINY MANAGEMENT BOARD
CABINET**

**12th FEBRUARY 2009
9 MARCH 2009**

Report of the Environment and Sustainability Task Group – Final Report

**“Extending District Heating and Combined Heat and
Power in Central Leicester”**

Report of Councillor Corral, Task Group Leader

1. Summary

- 1.1 This report provides the Overview and Scrutiny Management Board with the findings of the Environment and Sustainability Task Group investigation into the contract specification and performance criteria for the proposed new district heating and combined heat and power scheme. The decision to proceed with the scheme was made by Cabinet in July last year.
- 1.2 The Task Group was set up to address a number of issues and concerns raised by the Overview and Scrutiny Management Board prior to the Cabinet meeting. These issues were subsequently developed into the terms of reference of the review.
- 1.3 A project Manager has been appointed to investigate the best options for procurement for the Council and they will submit a report to Cabinet soon on what the Council will “buy” before expressions of interest are formally sought from the market. The Project Manager is currently undertaking a soft market testing exercise in order to secure responses from the market prior to the specification and contract stage.
- 1.4 The Task Group has worked positively with the Project Manager, who has found the issues raised during the review useful. The timing of the review has also been helpful, as it will enable the Overview and Scrutiny Management Board to make recommendations to Cabinet simultaneous to them receiving the Project Manager’s report

2. Recommendations

The Overview and Scrutiny Management Board is asked to endorse the following recommendations.

- 2.1 That the consultation with tenants be reported to the Overview and Scrutiny Management Board to include proposed methodology, timeline and results.
- 2.2 That individual metering for council tenants should be included as part of the scheme.
- 2.3 That the eventual contract should not specify a particular fuel but should be written in such a way that performance standards encourage year on year reductions in CO₂ emissions.
- 2.4 That further work should be carried out by officers to explore the issue of carbon credits.
- 2.5 That the eventual contract should strike a balance between affordable warmth, price and reduction in CO₂ emissions.
- 2.6 That further work should be carried out by officers to see whether there was value in connecting the scheme with the Council's refuse collection and waste recycling process.
- 2.7 That bonds should not be used in the development of the scheme.
- 2.8 That the scheme should incorporate the Aikman Avenue and Beatty Avenue systems.
- 2.9 That lessons and good practice should continue to be learned from other exemplar projects such as Birmingham.
- 2.10 That further work should be carried out by officers to consider the best options for Leicester in terms of profit retention and the return of assets at the end of the contract.

3. Description of the scheme.

- 3.1. The scheme, which would be an extension and development of the city's existing district heating scheme, is shown in appendix A. The scheme will bring together existing and new corporate estate and other external users and is proposed as two projects.
- 3.2. Project 1 network would link together the current district heating networks on St. Marks, St. Matthews, St. Peters and St Andrews. Including the Aikman Avenue and Beatty Avenue systems, Project 1 would supply 2,879 Council tenants. The network would run outside the inner ring road along the eastern and southern edge of the city centre and incorporate Leicester Prison and Leicester University. It is envisaged it would start in 2010.
- 3.3 Project 2 would run to the west of the city centre, largely along the inner ring road, completing the circle. Further pipe work would be to the east of the city centre, but within the ring road. Project 2 offers opportunities for many regeneration projects, but presents considerably higher economic risks than Project 1. It may not start until some time around 2015.

3.4 The local simultaneous production of electricity and heat derived from CHP is much more fuel efficient when compared with grid sourced electricity and individual gas boiler use and therefore provides savings in fuel and carbon emissions. It is expected that a CHP scheme will need around 37% less energy. Whilst the scheme will initially be gas fired the essential auxiliary boilers can utilise renewable fuels and could be so adapted in the medium term. The cost of delivery of Project 1 is estimated to be £10.25 million and Cabinet agreed that this should be delivered by a private sector Energy Service Company (ESCO).

4. Membership of the Task Group

4.1 The members of the Task Group were Councillors Corrall (Chair), Hall, Newcombe, Russell and Shah,

4.2 The Task Group was supported by the following:

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| Nick Boothe | Principal Accountant, L.C.C. |
| Ann Branson | Service Director, L.C.C. |
| Joanna Bunting | Head of Commercial and Property Law, L.C.C. |
| Richard Bull | Research Assistant, Institute for Energy and Sustainable Development, De Montfort University. |
| Evan Davies | Pollution Team Manager, L.C.C. |
| Professor Paul Fleming | Assistant Director, Institute for Energy and sustainable Development, De Montfort University. |
| Alan Gledhill | Environment Consultant, L.C.C. |
| Dave Pate | Service Director, L.C.C. |
| Nick Morris | Head of Energy Services, L.C.C. |
| Neville Stork | Head of Sustainability, L.C.C. |
| David Taylor | Interim Service Director, L.C.C. |
| Deborah White | Project Manager, L.C.C. |

5. Terms of reference.

5.1 The terms of reference for the review were:

1. To consider the options for the specification;
2. To consider the following points raised by OSMB:
 - the bonds issue
 - tenancy issues
 - metering issues
 - environmental implications in relation to One Leicester

6. Method of Investigation

- 6.1 The Task Group met on six occasions when expert opinion was sought from Council staff and colleagues from De Montfort University. The items covered at each of the meetings was as follows:

Meeting 1 - terms of reference, methodology and scheduling elements.

Meeting 2 - tenancy and metering issues.

Meeting 3 - environmental issues.

Meeting 4 - bonds issues.

Meeting 5 - conclusions.

Meeting 6 - final report.

- 6.2 In addition some of the Task Group, accompanied by Council Officers, visited Birmingham City Council on Friday 21 st November. The purpose of the visit was to see first hand the CHP scheme in Birmingham and to speak to Councillors, Officers and staff from Utilicom (Birmingham's ESCO) about their experiences and what could be learned.

7. Findings

7.1 Tenancy issues

- 7.1.1 The Task Group were initially concerned that the incoming supplier would be in a monopolistic position, leaving council tenants with no choice and unable to influence prices. However it is now understood that this is the same position that the tenants are currently in as users of district heating and that contract negotiations would ensure there is some element of price protection and stability for them. It was also noted that as more organisations bought into the scheme there was a greater chance for prices to be reduced.

- 7.1.2 There is an intention to appropriately consult tenants on the potential disruption of installing the system, particularly meters, and that it was anticipated that most households would incur a disruption of about one hour only. The issue of consultation will be one of the first to be addressed and resident representatives have been invited to sit on the Project Board with contractors. The Task Group have asked that the consultation methodology, including a detailed timeline be made available to the Overview and Scrutiny Management Board when it is ready followed by the consultation results.

- 7.1.3 Those tenants wishing to exercise their "right to buy" would have to agree to continue to use the system within the purchase contract. Similar arrangements would apply to existing leaseholders.

7.2 Metering issues

- 7.2.1 Currently council tenants pay for their hot water via a flat charge incorporated with their rental agreement. Although the installation of meters was put out to tender in April 2006, the cost of £5.7 million (to include Aikman Avenue and Beatty Avenue) meant the decision to select a contractor was postponed.

The possibility of including metering in the wider district heating and CHP scheme then resulted in the metering project being discontinued.

- 7.2.2 The present flat rate charge system means there is no incentive on the part of tenants to reduce consumption or carbon dioxide emissions. Metering is therefore essential to meet the schemes objectives of providing “affordable and controllable heat and reducing CO₂ emissions”, and the Task Group feels that this should not be at the disadvantage of the Council and its tenants.
- 7.2.3 The implications of metering i.e. installation costs, potential disruption, heat cost savings and CO₂ reductions currently being explored by the Project Manager with suppliers via a soft marketing exercise.

7.3 Environmental Issues in relation to One Leicester

- 7.3.1 It was noted that Project 1 could reduce CO₂ by 7,300 tonnes per year in total, of which 4,300 tonnes is estimated to be saved from the LCC building emissions. This represents over 13% reduction on current Council building emissions (NI 185) and 0.37% for the City. Project 2 could see further reductions of 5,800 tonnes per year, about 15% when compared with the alternative conventional energy supply to these buildings. This would reduce the city’s emissions by a further 0.3%.
- 7.3.2 The scheme would initially be based on natural gas but there is scope in the medium term and long term to convert to renewable forms of energy as they become more available, offering more carbon reductions and potentially more energy security. Gas is currently favourable to other fuels in terms of affordable warmth and the infrastructure is already in place. The most appropriate contract would not specify a particular fuel but instead incorporate performance specification to continuously reduce CO₂ emissions. This would encourage the contractor to invest in new fuel technologies as they emerged.
- 7.3.3 The Task Group discussed the developing agenda around carbon credits extensively and in particular whether it should be the Council or the ESCO who should hold the carbon credits. It was noted that although carbon credits were a good incentive by which to implement new schemes and cut emissions, if the Council owned the credits this would not encourage the ESCO to develop further carbon reduction technology. Alternatively if the ESCO owned the credits then the Council would not gain the financial benefits.
- 7.3.4 The level of CO₂ reductions would have to be balanced against the provision of warmth and price in determining the best value for money contract.
- 7.3.5 The Task Group considered the viability of using fuels derived from the city’s refuse and that interested companies could be made aware of this aspect.

7.4 Bonds and related issues

- 7.4.1 Given the set-up costs of c. £100,000 along with additional underwriting costs, the minimum recommended amount of a large scale institutional bond is around £100 million and therefore does not fit with the Project.

A smaller retail bond may be more viable at around £1 million over any period taking in to account the following:

- It is complex to set up and has one-off administration costs and ongoing running costs.
- The full amount would need to be underwritten by the City Council
- Clarification of the Council's position would need to be sought from the Financial Services Authority (FSA) potentially incurring additional legal costs.
- To ensure that the bonds issue would be viable it is recommended that tranches would be set at a minimum amount of £5,000.

It was therefore felt that issuing bonds would not serve to meet the underlying objectives as:

- It would not provide the Council with any say in the "Company" and would therefore not provide any safeguards for tenants in terms of the "monopoly" position or pricing – this would however be addressed by the contract.
- There is not a current requirement to raise funds for investment in the project.
- The £5,000 minimum amount would, in all likelihood, exclude affected tenants and residents from investing.

7.5 District Heating Management Issues.

- 7.5.1 The original current proposals excluded the district heating systems at Aikman Avenue and Beatty Avenue for technical and connectivity reasons. However there is concern that if the rest of the existing system were passed to a new contract then the Council would not have the capacity to maintain these two systems. In addition the pipe work in Aikman Avenue is ready for replacement. The Task Group was also concerned that if the Aikman Avenue and Beatty Avenue networks were left out of the scheme then the tenants there would be disadvantaged.

7.6 Birmingham District Energy Scheme.

- 7.6.1 The Task Group visited the scheme based around Broad Street, which is operated by Birmingham District Energy Company Ltd. The Birmingham District Energy Company Ltd is an ESCO and is a wholly owned subsidiary of Utilicom, which is the UK's leading developer of sustainable district energy schemes.

- 7.6.2 The initial Broad Street customers include the International Conference Centre, the National Indoor Arena, The Town Hall, the Council House, Hyatt

Regency Hotel, Paradise Circus, the REP Theatre and Aston University. As well as providing electricity and hot water the scheme also provides chilled water for air conditioning and cooling purposes. The scheme is notably different from that proposed for Leicester in that there are no domestic buildings in the network.

7.6.3 The Broad Street scheme is well suited to transfer to alternative fuels as they develop, as the generating house is located on a canal thereby allowing the easy and energy efficient transport of fuels such as woody biomass. Birmingham City Council has carried out an audit to establish the extent of renewable woody biomass within its border and surrounding area.

7.6.4 Through the Birmingham contract the Council retains a share of the profit and at the end of the 25-year contract the ownership of the infrastructure returns to the city. It was noted however that Birmingham had experienced difficulty in respect of its contract whereby it had to re enter a completely new procurement process when it wanted to add additional buildings to its network, as it had not included them in its original OJEU (Official Journal of the European Union) notice.

8. CONTACT

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| Key Decision | No |
| Reason | N/A |
| Appeared in Forward Plan | N/A |
| Executive or Council Decision | Executive (Cabinet) |