



## **WARDS AFFECTED**

ABBEY, LATIMER, SPINNEY HILLS, CASTLE, STONEYGATE,  
NEW PARKS, COLEMAN

## **FORWARD TIMETABLE OF CONSULTATION AND MEETINGS:**

<b>CARBON FOOTPRINT PRIORITY BOARD</b>	<b>18<sup>th</sup> AUGUST 2010</b>
<b>CABINET LEAD BRIEFING</b>	<b>23<sup>RD</sup> SEPTEMBER 2010</b>
<b>SMB</b>	<b>26<sup>th</sup> OCTOBER 2010</b>
<b>CABINET BRIEFING</b>	<b>22<sup>ND</sup> NOVEMBER 2010</b>
<b>OSMB</b>	<b>09<sup>TH</sup> DECEMBER 2010</b>
<b>CABINET</b>	<b>13<sup>TH</sup> DECEMBER 2010</b>

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## **EXTENDING DISTRICT HEATING & COMBINED HEAT & POWER (CHP) IN LEICESTER**

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### **Report of the STRATEGIC DIRECTOR, DEVELOPMENT CULTURE & REGENERATION**

#### **1. PURPOSE OF REPORT**

- 1.1 To update Members on the outcome of the Competitive Dialogue conducted in accordance with EU procurement regulations for the Project for “Extending District Heating and Combined Heat and Power in Leicester”.
- 1.2 To seek a decision to award the contract to Cofely District Energy as being “the most economically advantageous” bid.
- 1.3 To describe the Benefits that would flow from entering into a 25 year contract with a Preferred Bidder, and to compare the projected benefits to the current position and the challenges of continuing in-house provision of district heating services.
- 1.4 To describe how the Council will manage the performance of the Preferred Bidder and the mechanisms in place to protect residents and other service users.
- 1.5 To review the position as it relates to the introduction of residential meters for tenants and leaseholders and seek endorsement of the proposals to commence a pilot study and full impact analysis with the co-operation of residents.
- 1.6 To seek cabinet approval to grant 25 year leases at a peppercorn rent on the 6 boiler room sites to be transferred as part of the tender process.

## 2. SUMMARY

- 2.1 This is a scheme to provide heat in Leicester's central areas for 2800 tenants and leaseholders, Council administrative offices, schools, De Montfort Hall, the University of Leicester and HM Prison, and in the future to other public and private sector premises (see map at Appendix 5). It also includes Aikman Avenue and Beatty Avenue estates.
- 2.2 The scheme will provide heat in a way that gives carbon savings at a significant level and is the Council's single biggest contribution to reducing our own carbon footprint and for the City. It provides an opportunity to achieve c.5% of our 2025 City target and 5.7% our own.
- 2.3 In July 2008 Cabinet decided to proceed with a private sector led approach as the preferred delivery mechanism as it will ensure an expertly run scheme that will deliver the required outcomes yet will minimise capital and ongoing operating costs as well as risk to the Council.
- 2.4 Following publication of an OJEU notice on 10 August 2009 and using Competitive Dialogue under EU procurement procedure officers have identified Cofely District Energy as a Company that will invest £15 million - including £1 million gained from CESP funding - in the City. They will upgrade our existing district heating systems on six City estates and extend the systems and connect them to create a joined-up and resilient community heating network across the City.
- 2.5 The company will install combined heat and power units (CHP) which will generate electricity for sale, with the waste heat used for the heating system. Initially the CHP units will be gas fired, but over time, once the network is installed, bio fuels can be used, giving further carbon savings.
- 2.6 The Council will pay Cofely for heat consumed. The overall cost is less than the current overall cost to the Council of heating its own buildings and supplying heat to its tenants and leaseholders.
- 2.7 The Council will continue to incur annual costs for maintenance of retained elements of the system, but over the whole life of the project the Council will make a net saving on the Housing Capital Programme with identified annual Carbon Reduction Commitment (CRC) savings. The CRC savings could rise in future.
- 2.8 The Company is offering a receipt for the district heating assets. These assets will be offered back to the Council at the end of the contract. The Council can choose to buy back at fair market value or decide to retender the contract.
- 2.9 Residents will, as now, pay heat prices in line with those available on the open market. The proposed contract does not include installing individual meters so the bills will still be issued through the Council. However, the contract offers a pilot metering scheme for 50 homes which can inform future investment decisions.

- 2.10 Tenants and leaseholders have been involved throughout the process.
- 2.11 The University of Leicester and HM Prison Leicester support the proposal and are expected to join the scheme and become customers of Cofely District Energy.

### **3. RECOMMENDATIONS**

- 3.1 That Cabinet authorises the Strategic Director, Development Culture & Regeneration, in consultation with the Cabinet Lead for Housing, to award the contract to Cofely District Energy (the Preferred Bidder) with the basis of the award being the “most economically advantageous” Bid.
- 3.2 To endorse the proposed approach to residential metering for tenants and leaseholders.
- 3.3 To authorise the granting of leases on Peppercorn rents for the 6 boiler room sites.
- 3.4 That the Council will honour the price guarantee to tenants and leaseholders for a further 12 months and prices will continue to be reviewed annually as part of the rent-setting process.
- 3.5 That the ongoing programme of energy efficiency measures within the whole of the Council's stock is considered when agreeing the Housing Capital Programme and that resources arising from this scheme are invested in the programme.

### **4. REPORT**

#### **The Leicester Project - Objectives and Benefits**

- 4.1 The Council's objectives for this Project are:
- To provide affordable, reliable and controllable heat to a number of Council and residential buildings and other senior users
  - To reduce carbon emissions for the Council and the City, contributing towards achievement of One Leicester objectives with the ambition to transform Leicester in to Britain's Sustainable City over the next 25 years
  - To establish a secure and sustainable energy supply (anticipated to be through identification and development of renewable fuels)
  - To have the potential to expand the benefits to users not currently identified in the feasibility study, enabling them to connect to the network and contribute to carbon reduction in Leicester - providing an opportunity for extended partnership working.
- 4.2 In addition, it is expected that the Preferred Bidder will contribute to reducing fuel poverty by reducing the cost to the end user(s) by ensuring that the unit price of heat is equal to or lower than the comparative market rate.
- 4.3 A private sector led approach with the Preferred Bidder having responsibility for design, build, finance and operation of the scheme means that cost and risk to the City Council will be minimised.

## Key Drivers

- 4.4 The scheme will make a contribution to the City of Leicester's climate change objectives of a 50% reduction in CO<sub>2</sub> by 2025. The Project feasibility study identified that City carbon emissions could be reduced by a minimum of 13,100 tonnes per annum representing around 1.6% of the 2025 target.
- 4.5 The study also identified that the Project would make a contribution to the following:
- Reduction of per capita CO<sub>2</sub> emissions in Leicester (NI 186) estimated at 0.3%
  - Helping the City Council and the private sector to comply with the mandatory Carbon Reduction Commitment (CRC), designed to offer direct financial incentives to large energy users to reduce energy use
  - Supporting the private sector and Regeneration Area initiatives to comply with Local Plan requirements on energy.
- 4.6 With a forthcoming power shortage being forecast by some commentators, the introduction of an energy-efficient scheme in the City alongside a contractual obligation for the Preferred Bidder to work toward establishing a sustainable energy resource through development of renewable fuels will give some resilience in the security of energy supplies.
- 4.7 The ability to expand the scheme in future to include other senior users and potential new customers will provide an opportunity for substantially increased carbon reductions giving widespread environmental benefits to the City and providing an opportunity for extended partnership working. The Council may receive of a profit share for new connections to the network.
- 4.8 Predicted fuel shortages; rising fuel costs; and an environmentally-focused Government agenda has resulted in a number of public and private sector institutions implementing district heating schemes to provide both environmental and cost benefits to users.

## The Current Landscape

- 4.9 The previous Government was in the process of building a framework to encourage the development of district heating networks in the towns and cities throughout the UK. Whilst there is some uncertainty in the policy landscape resulting from the election of the Coalition Government, the draft Structural Reform Plan issued in July by the Department of Energy and Climate Change (DECC) identifies several key areas of reform including a potential increased target for deployment of renewables; a drive to increase carbon emissions targets from 20% to 30% by 2020; and potential reforms to the Climate Change Levy (CCL) expected in the Finance Bill 2011.
- 4.10 We can therefore expect increasingly challenging carbon reduction targets with ongoing and new funding streams likely to be available in support of their achievement. The Council and Cofely will work together to identify and bid for grant funding for the scheme and, if successful, this will reduce costs.

## **Soft Market Testing**

- 4.11 With a view to gaining a better understanding of the market, and to support the development of a viable specification, a soft market testing exercise was conducted. Officers met with companies experienced in delivering district heating and CHP projects that would be capable of providing the service on a Design, Build, Finance and Operate basis, discussing company suggestions for the most effective approach to deliver a successful scheme.

## **The Proposal**

- 4.12 Cofely District Energy will design, build, finance and operate a number of core district heating schemes initially fuelled by gas-fired CHP. These schemes will be expanded and ultimately be inter-connected to deliver a city-wide district heating network, with a view providing a network infrastructure capable of utilising renewable fuels/zero carbon technologies in the future.
- 4.13 Cofely will be contracted to ensure that they provide an efficient, reliable and resilient heat service to domestic and non-domestic users that reduces carbon emissions. Their performance will be measured against an output specification that sets out service delivery targets and deductions for failure to achieve those targets. Service and performance will be monitored by the Contract Manager with users feeding in to the process by way of an Operations Panel.
- 4.14 Cofely will have full responsibility for the proposed network extension and will also be responsible for operating, maintaining and improving the plant within the boiler houses. The Council will therefore retain responsibility for underground pipework and equipment and pipework/risers inside the residential and non-residential buildings.
- 4.15 The Council will continue to bill and collect payments from residents and non-residents.
- 4.16 The Council will remain as the first point of contact for residents and non-residents in case of questions or problems with their heating.
- 4.17 A Partnering Agreement between the Council and Cofely will incorporate other phases of the scheme including: the metering strategy; energy efficiency strategy; extension of the scheme to regeneration areas; attracting grant funding.
- 4.18 The transfer of operational responsibility will be phased with a period of transition early in 2011 allowing for detailed design, planning and programming to be finalised.
- 4.19 Works will commence in the second half of 2011 and take around 18 months to complete.

## **Benefits / Outcomes**

4.20 Proceeding with the Project and awarding the contract to Cofely, i.e. enabling and implementing the City-wide district heating scheme based on combined heat and power (CHP) technology as proposed will result in the following:

For the City:

- £15 million investment in the City of Leicester
- A 25 year contract to improve and extend district heating
- An ongoing reduction in CO2 emissions contributing to the achievement of the One Leicester theme to reduce our carbon footprint
- Locally-generated energy, i.e. the potential to purchase both heat and electricity from Cofely
- Future-proofing – whilst the scheme will initially be based on gas-fired CHP there is a commitment to move towards renewable fuels to further reduce carbon emissions and reduce reliance on conventional fuels
- The development of a city-wide district heating infrastructure will enable developers to comply with Local Plan requirements relating to energy and carbon

For the Council:

- A receipt for the existing district heating assets
- Capital cost savings over the 25 year contract period
- A value for money carbon reduction scheme
- Annual Carbon Reduction Commitment (CRC) cost savings
- Allocation of almost £1 million CESP funding from government towards the contracted works
- A potential profit share for the Council (above a certain threshold and on new connections) that can be utilised either to subsidise heat costs in the future or for other uses
- The core/existing scheme will revert back to Council ownership at the end of the contract period - albeit at fair market value - allowing the Council to make a decision on whether to retender or self-manage
- Increased partnership working with the likelihood of the University of Leicester, HM Prison Leicester and other users coming on board

For the Residents:

- An efficient, reliable and resilient heat supply for the term of the contract
- As is currently the case, heat prices will remain in line with those available on the open market
- A guarantee that works will not take place or be disruptive in winter months
- A forum for ongoing community input
- The benefit of Cofely providing an Energy Improvement Manager for 12 months, at no cost to the Council, with the sole purpose of identifying and implementing energy and carbon reductions across the estates
- A commitment by Cofely and the Council to work with the residents on completing a full impact analysis and pilot study for introducing residential meters including Cofely paying for a pilot of 50 households

- Should the pilot prove the benefits of residential meters and necessary funding be obtained, tenants can look forward to being able to control how much they use and how much they pay in the future

4.21 A decision not to proceed, i.e. doing nothing will result in:

- No immediate or future carbon emissions reductions to be gained from district heating without capital investment by the Council, although some funding may be available to contribute to improvements to district heating that reduces carbon
- Increased risk to the City Council in terms of our ongoing carbon trading position
- Inability to extend the scheme and achieve required outcomes without substantial capital investment by the Council estimated at £15 million
- Ongoing susceptibility to volatile energy prices with little prospect of introducing renewable fuels without substantial capital investment
- The Council facing a substantial capital bill over the next 25 years solely to maintain the existing district heating infrastructure
- No progress on residential metering with tenants and leaseholders being unable to control/reduce the cost of their heating and therefore being less willing to change their consumption habits, levels of energy usage and carbon emissions

### **Risk Assessment**

4.22 The potential risks to the Council include those that could arise from any outsourced contract. Where possible, these impacts will be mitigated through the details of the contract, through careful project planning and business continuity planning. Risks include:

- Risks arising from change in law (though these can have negative or positive impact)
- Disruption during implementation
- Contract failure during operation
- Difficulties at the end of the 25 year contract
- Failure to expand the scheme if Cofely do not offer competitive connection prices

4.23 For Council tenants and leaseholders issues may arise if gas prices rise, or there is severe weather so that consumption rises. The impact on charges to tenants and leaseholders will be the same as now. Until individual heat meters are installed the Council will continue to bill and collect payment from tenants and leaseholders and the Council will set the charge at the time that the annual rent rise is agreed (usually January each year). No increase in heat charges is recommended in year one.

### **The Role of the University of Leicester and HM Prison Leicester**

4.24 Whilst the role of the University of Leicester and HM Prison Leicester are as senior users / purchasers of heat and will therefore have separate heat supply agreements with the Preferred Bidder, both have played an active role in all stages of the development and procurement process including detailed involvement in Competitive Dialogue.

- 4.25 The Vice Chancellor of the University of Leicester has provided a written statement of commitment to the Project and both discussions between the University and Cofely, along with discussions between HM Prison Leicester and Cofely, are well underway with a view to finalising their positions in late December.
- 4.26 It should be noted that in the unlikely event that the University of Leicester decide not to proceed with the Project it will mean that Cofely will need to redesign their proposals for the city centre and rework the financial model. Whilst this should not affect the price to the Council it would affect the programming of works and the carbon emissions savings attributable to the Project.

### **Community Engagement**

- 4.27 Although the strict confidentiality requirements of the procurement process resulted in restrictions on elements of the Bidders' proposals that could be discussed with residents, a programme of community engagement has been underway including:
- Community and tenant / leaseholder representative meetings with Ward Councillors
  - Survey of residents to identify key concerns
  - Information leaflets being distributed (as requested by representatives)
  - Residents' questions forming part of the evaluation process
  - Information Events held in the first week in December
- 4.28 In general residents are in support of the scheme and the metering pilot. They believe that the Council should also make improvements to energy efficiency within their homes. Examples include improvements to insulation and improved heating controls.

### **Evaluation of Bidders' Proposals and Selection of a Preferred Supplier**

- 4.29 For the purpose of evaluating Bidders' proposals two panels were established, both having a role to play in the selection and evaluation process: the User Group Panel (including Heads of Service and lead officers across all impacted areas of the Council; tenants and leaseholders; the University of Leicester and HM Prison Leicester) had an advisory and support role, whereas the Bid Evaluation Panel (including an expert CHP consultant; senior Finance Officer; senior Legal Officer; Sustainable Procurement Officer; and senior Energy Services and Technical Services officers) had both an advisory and an analytical role in the selection and evaluation process. Representatives of both Panels agreed their appropriate Terms of Reference and the Bid Evaluation Panel recommends the Preferred Bidder to Cabinet.
- 4.30 Cofely District Energy has been identified as the Preferred Bidder on the basis of putting forward the most economically advantageous tender in accordance with the detailed award criteria allocated as follows:
- Quality                      70%
  - Price                            30%

This is the basis on which Final Bids have been assessed in respect of their ability to provide the service required on the terms specified.

## The Preferred Bid – Addressing Project Objectives

4.31 The Bid proposed by Cofely addresses the Project Objectives as follows:

<b>Project Objective</b>	<b>Preferred Bid</b>
To provide affordable, reliable and controllable heat to a number of Council and residential buildings and other senior users	Cofely has a solid record in delivering reliable and effective CHP solutions to major cities in the UK including Southampton, Birmingham and Manchester. In addition, their pricing methodology – which incorporates operating and maintenance costs for the full 25 year contract period – is realistic based on a whole-life-costing basis.
To reduce carbon emissions for the Council and the City, contributing towards achievement of One Leicester objectives with the ambition to transform Leicester in to Britain’s Sustainable City over the next 25 years	<p>One of the priorities for action is to “Reduce our Carbon Footprint”, with a focus on reducing the City’s carbon emissions from the 1.983 million tonnes generated in 2004 to 1.6 million tonnes per annum - an overall reduction of 383,000 tonnes by 2013.</p> <p>Cofely proposes to reduce carbon emissions in the City by 12,000 tonnes per annum by 2014; 20,000 tonnes per annum by 2019; with a stretch target of 50,000 tonnes per annum by 2020.</p> <p>The predicted levels exceed our target of 13,100 tonnes, with a reduction in carbon emissions of 50,000 tonnes per annum for the City representing around 6% of the 2025 target.</p> <p>In addition, Cofely will provide an Energy Improvement Manager for 12 months, at no cost to the Council, with the sole purpose of identifying and implementing energy and carbon reductions across the estates.</p>
To establish a secure and sustainable energy supply (anticipated to be through identification and development of renewable fuels)	<p>Cofely proposes the introduction of gas-fired CHP at day one with the focus on developing and connecting the existing network to allow others to connect.</p> <p>CHP provides the foundation for an ongoing and increasing reduction of CO2 over time, initially reducing in line with increased efficiency of the system</p> <p>Once the network is complete there is a plan for moving towards renewable fuels to provide significantly larger carbon savings – predicted at a level of 50,000 tonnes per annum. This provides a future-proofed scheme that reduces</p>

	<p>susceptibility to volatile energy prices. Emissions would reduce further as additional users join the City scheme.</p>
<p>To have the potential to expand the benefits to users not currently identified in the feasibility study, enabling them to connect to the network and contribute to carbon reduction in Leicester - providing an opportunity for extended partnership working</p>	<p>Cofely has incorporated connections to additional Council buildings; the University of Leicester; and HM Prison Leicester into their proposals. In addition, a number of other public and private users have been identified for potential future connection once the network is established.</p> <p>It should be noted that both the University and HM Prison still have an option to decide against joining the scheme and develop other carbon reduction programmes. The Leicester scheme would then need to follow an alternative route and carbon emissions attributable to the scheme would be reduced.</p> <p>Cofely have already been proactive in identifying a number of additional buildings that could be suitable for connection to the scheme in future.</p>
<p>In addition, it is expected that the Preferred Bidder will contribute to reducing fuel poverty by reducing the cost to the end user(s) by ensuring that the unit price of heat is equal to or lower than the comparative market rate</p>	<p>At day one Cofely proposes to continue to charge the City Council for the use of heat, with the Council recharging residents in the current manner. Whilst incurring revenue costs and making capital savings, the price of heat to the Council (based on whole-life-costing) is competitive.</p> <p>Heat prices will be benchmarked against the price of gas and whilst pricing mechanisms are transparent there is no guarantee that any prices fixed by the Council in the short-term will not rise in the future subject to gas price volatility or increased consumption due to adverse weather conditions. This a key sensitivity identified in earlier reports to Cabinet.</p>
<p>A private sector led approach with the Preferred Bidder having responsibility for design, build, finance and operation of the scheme means that cost and risk to the City Council will be minimised</p>	<p>Cofely will design, build, finance and operate the existing schemes and develop, extend and improve those schemes for the term of the 25 year contract.</p> <p>The Council will continue to be responsible for maintaining equipment within the tenants' homes.</p>

### Residential Heat Meters

- 4.32 Following rises in the cost of purchasing gas for district heating, providing residents with the ability to control the amount of heat they use and thus the amount they pay has become increasingly desirable.
- 4.33 Cabinet asked for a recommendation “whether or not it is technically more efficient to procure individual meters as part of the same process, whilst ensuring that this does not jeopardise the fundability of the scheme”. Following soft market testing it became clear that including individual residential metering as a fixed requirement would put the Project at risk and, as a result, residential metering was included as a variant, i.e. Bidders were asked to submit one proposal with meters and one without.
- 4.34 The dialogue between officers and Bidders and subsequent submission of Final Bids has clearly identified that adding the cost of residential meters to the Project - initially estimated at £6 million - makes the Project unviable and unaffordable. The purchase and installation cost of meters would need to be rolled into revenue costs and therefore be added to the price of heat over a 10 year period. This would increase costs to residents by approximately of £225 per annum. This represents an increase to current heat charges of around 30%, meaning that in order to reduce the amount they pay residents would need to reduce their heat consumption by more than 30% per annum. A resident who reduces their consumption by less than 30% per annum would pay more than the current block charge.
- 4.35 It should be noted that there is a difference between enabling residents to control their heating and enabling them to control their consumption, i.e. how much they pay. Whilst measures to improve efficient use of heat have included installation of heating controls and thermostatic radiator valves where possible, it is recommended that a full impact analysis - including a pilot - is completed in the next 12 months to clearly establish the benefit to residents, and the level of carbon emissions reductions that can be achieved, by introducing individual residential meters. The study should commence immediately following exchange of contracts with Cofely and findings should be reported to Members on a quarterly basis. The study should form the next phase of the existing Project and can be funded from the current Project budget, i.e. no additional funding is required to complete the pilot study.
- 4.36 Cofely have agreed to pay for a metering pilot to include 50 properties and, if awarded the contract, is committed to working with the Council to clearly establish the benefits of introducing residential meters and will also add weight to any bid the Council may make for funding for this specific purpose, e.g. CESP funding.

### **Next Steps**

- 4.37 To sign and exchange a 25 year contract with Cofely District Energy, to include output specification targets and performance/service level criteria required for the service; Business Continuity arrangements; and a method of measuring achievement of the output specification and service levels by the Preferred Bidder.

- 4.38 For Cofely District Energy, in consultation with officers, to agree a detailed programme of works for development of the proposed network infrastructure. A detailed map is enclosed at Appendix 5, with the anticipated timetable seeing the following milestones:

<b>Milestone</b>	<b>Date (subject to Council approvals)</b>
Commencement of interim operation and maintenance of service by Cofely	January 2011
Commencement of detailed design for improvement works	January 2011
Commencement of boiler house works	April 2011
Commencement of infrastructure works	Mid 2011
Proposed operational start date (first phase)	End 2011
Completion of works	End 2012

- 4.39 For officers to continue community engagement and work with Cofely to commence, without delay, the full impact analysis and pilot study to assess the benefits to tenants; Right to Buy leaseholders; and the City (in terms of carbon emissions reductions) of installing residential heat meters.
- 4.40 For officers to work with residents and the Energy Improvement Manager provided by Cofely to identify energy efficiency measures that could be implemented in residents' homes. This work can then inform future investment decisions.

## **5. FINANCIAL, LEGAL AND OTHER IMPLICATIONS**

### **5.1 & 5.2 Confidential – Not For Publication**

The information as to financial and legal implications in the report are exempt information for the purpose of Schedule 12A of the Local Government Act 1972 because it is information about the business affairs of both the bidders and the Council and in legal advice, and the public interest in disclosing the information does not outweigh the public interest in withholding it.

### **5.3 Property Implications – Eddie Beilby – Valuation Services & Operational Property Manager (Acting)**

As part of the tender process the 6 boiler rooms containing the plant will be transferred on the basis of 25 year leases on peppercorn rents. Standard policy of the Council would be to charge market rents for property assets, however there is no appreciable market for these boiler rooms apart from the purpose that they were constructed for and the Authority is receiving a capital receipt for the plant itself thereby providing best consideration for the boiler rooms and plant as a combined asset.

Under the provisions of the lease the City Council will also retain responsibility for the maintenance of the boiler house structures.

#### 5.4 Climate Change Implications – Helen Lansdown – Senior Environmental Consultant (Sustainable Procurement)

The preferred bid would exceed the carbon reduction targets set out for the project (as outlined in 4.31) and would make an important contribution towards achieving NI 186, reducing citywide carbon emissions (further detailed in 6.1). The 'do nothing' option would not result in any reduction in carbon emissions, however there may be opportunities for future carbon saving initiatives to be pursued. It should be noted that these opportunities would also be available to the Council should the contract be awarded to the Preferred Bidder.

### 6. OTHER IMPLICATIONS

OTHER IMPLICATIONS	YES/NO	Paragraph references within the report
Equal Opportunities		See attached EIA – appendix 6
Policy		None
Sustainable and Environmental		See Section 6.1 below
Crime and Disorder		None
Human Rights Act		None
Elderly/People on Low Income		See attached EIA – appendix 6
Corporate Parenting		None
Health Inequalities Impact		None

No TUPE implications.

#### 6.1 Environmental Implications – Nick Morris – Head of Energy Services

The overall scheme (including University of Leicester and HMP) will reduce citywide CO<sub>2</sub> emissions by 11,673 tonnes per annum.

Leicester City Council's non residential CO<sub>2</sub> emissions would be reduced by 1,924 per annum under the scheme. This would make an approx 5.7% contribution towards the council's overall target reduction of 33,812 tonnes by 2025.

There is potential for the proposed scheme to be expanded further, offering opportunities for both new and existing buildings to be connected to the network in future. Any new council connections would help to improve performance under National Indicator 185 (reducing CO<sub>2</sub> emissions from Local Authority operations), whereas the connection of other organisations and households would contribute towards NI 186 (per capita reduction in CO<sub>2</sub> for the Local Authority Area).

The current proposals would achieve a 1.03% contribution towards the NI 186 and One Leicester citywide carbon reduction target (with a possibility of this rising to 4.4% if

Cofely's stated stretch-target potential of 50,000 tonnes could be achieved through further expansion proposals).

The ability of the supplier to achieve potential carbon emissions reductions (beyond the initial 11,673 tonnes) will depend on the attractiveness of the scheme to potential new users. This will be influenced by the relative cost of heat compared to existing fuel costs at that time.

The proposed use of Biomass heating fuels would reduce reliance on fossil fuels and contribute to renewable energy targets (requiring that 20% of our energy should come from renewable sources by 2020). This provides a level of resilience in the security of energy supply for those buildings connected to the network.

CRC implications:

A reduction of 1,924 tonnes CO<sub>2</sub> in the council's non residential buildings would reduce liability under the CRC Energy Efficiency Scheme by approximately £23,088 per year (based on £12.00 / tonne for the introductory phase only).

- 6.2 When comparing the costs of the scheme to other carbon reduction initiatives this Project clearly represents better value for money. Whilst the Hotlofts initiative is regarded as one of the most cost-effective projects for reducing carbon, when compared to the introduction of CHP and proposed extension of the district heating network Hotlofts could demonstrate a level of carbon savings equivalent only to the minimum level the CHP scheme will deliver for the same level of investment (i.e. around 6,000 tonnes saved per annum). The issues would be however, that we do not have the capital to invest in Hotlofts; unlike the CHP scheme Hotlofts does not provide substantial capital savings; it would be extremely difficult to identify the amount of homes required to make such carbon savings via Hotlofts; the Hotlofts scheme provides no opportunity to expand carbon savings any further than the minimum level identified.

## 7. RISK ASSESSMENT MATRIX

See appendix 4

## 8. BACKGROUND PAPERS

- 5145 – Extending District Heating & CHP in Central Leicester - Joint Report of Corporate Director, Adults & Housing and the Chief Finance Officer, 14 July 2008
- 5427 - Extending District Heating & CHP in Central Leicester – Report of the Interim Corporate Director of Adults & Housing, 09 March 2009
- Local Government Act 1972

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**9. CONSULTATIONS**

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HM Prison Leicester  
Residents currently served by district heating

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