

Report of: Executive Member for Environment and Transport

Meeting of:	Date	Ward(s)
Executive	21 5 2015	Bunhill
Delete as appropriate		Non-exempt

SUBJECT: Procurement Strategy for Canal Sourced Heat Supply for Bunhill Heat Network**1. Synopsis**

- 1.1 This report seeks pre-tender approval for the procurement strategy in respect of a Canal Sourced Heat Supply for Bunhill heat network in accordance with Rule 2.5 of the Council's Procurement Rules.
- 1.2 The recommended procurement route is a formal competitive tendering process in compliance with European advertising requirements.
- 1.3 The Canal Sourced Heat Supply project is aimed at extracting heat from the Regents Canal and feeding it into the Bunhill heat network at a cost lower than we can presently provide heat. Following a feasibility study and delivery proposal, the Department for Energy and Climate Change (DECC) is considering awarding funding towards the delivery of a scheme.

2. Recommendations

- 2.1 To approve the procurement strategy for Canal Sourced Heat Supply for Bunhill heat network as outlined at paragraph 3.29 below.
- 2.2 To agree to delegate the decision of the award of the contract to the Corporate Director of Environment & Regeneration in discussion with the Executive Member for Environment and Transport.

3. Background

Nature of the service

- 3.1 Following a successful bid to DECC for funding, the Council have completed a feasibility study for the recovery of heat from the Regents Canal to supply the Bunhill heat network. This is technical feasible and economically attractive and could deliver a significant proportion of the heat for Bunhill heat network by 2016 (see Appendix 1 for a summary of the study).
- 3.2 The capital cost of the scheme is estimated to be £2.4 million and the Net Present Value is £3.6 million over a 20 year period.
- 3.3 As part of a competitive tender process, a project proposal was submitted to DECC by the Council and its consortium partners (see 3.4). It has been proposed that the project would be delivered by Star Refrigeration with DECC contributing ~£1 million, and an estimated further ~£1.4 million from Star Refrigeration. All of the Council's costs from participating in the project would be met from the DECC funding.
- 3.4 The Council is part of a consortium of four organisations. The other three brought together by the DECC tender process are as follows:
- Star Refrigeration Ltd: the UK's major heat pump manufacturer and which was the contractor for the initial European water heat supply scheme in Norway (see Appendix).
 - Building Energy Solutions: a London-based energy consultancy.
 - Carbon Descent: also a London-based energy consultancy.
- 3.5 If DECC award the funding and enter into contract with Star Refrigeration for the delivery of a scheme, the proposed project can then provide an opportunity for the Council to procure lower cost and lower carbon heat for the Bunhill heat network.

Estimated Value

- 3.6 The quantity of heat which could be supplied from this scheme is estimated to have a value of £4 million over a 20 year period (the timescale of the anticipated life of the energy centre)
- 3.7 The Council will purchase the heat produced at a price at least 10% less than our own generation costs.

Timetable

- 3.8 DECC have set a challenging time table to have the project delivered by March 2016. To reduce the administrative timescale, an early adoption of the procurement strategy is required.
- 3.9 The contractor has confirmed that they could deliver the scheme within the DECC timescale and will bear the risks of planning and implementing the project.
- 3.10 The project implementation will include consultations with residents and members in addition to the usual planning requirements.

Options Appraisal

- 3.11 The proposed fully funded scheme presents an opportunity for the Council to secure lower cost, lower carbon heat without Council capital investment.
- 3.12 Alternative options would require a significant proportion of the costs to be met through Council capital

investment in order to deliver heat supply at an equivalent lower cost.

- 3.13 It is therefore recommended that the Council advertise for the procurement of a Heat Supply Agreement.

Key Considerations

- 3.14 Access to a further lower cost heat supply will improve the resilience and diversity of the Bunhill heat network and maintain our capacity to provide residents within the scheme with lower cost heat.
- 3.15 The current recommended procurement route eliminates the need for Council capital investment and the additional capacity will enhance any extensions or developments of the Bunhill network.
- 3.16 The heat supplied from the Regents Canal is an environmentally sustainable renewable source which would displace the heat provision from gas boilers and thus improve our energy security, reduce the borough's impact on climate change and improve local air quality.
- 3.17 Any organisation offering a Heat Supply Agreement to the Council would be required to meet the Council's London Living Wage requirements. There would be no TUPE, Pensions or Staffing implications associated to this procurement.

Evaluation

- 3.18 The following key dates are proposed:
- 21st May: Executive for approval
 - Late-May: Contract advertised
 - Mid-July: Contract awarded
- 3.19 The tender will be conducted in one stage, known as the Open Procedure as the tender is 'open' to all organisations who express an interest in the tender. The Open Procedure includes minimum requirements which the organisation must achieve before further evaluation.
- 3.20 Tenders are evaluated on the basis of the tenderers' price and ability to deliver the contract as set out in the evaluation criteria in order to determine the most economically advantageous offer.
- 3.21 The proposed award criteria are 50% price and 50% quality. Quality criteria will include:
- Carbon Intensity
 - Capacity of supply
 - Availability of heat
 - Quality of supply i.e. temperature, flow and pressure

Business Risks

- 3.22 The Heat Supply Agreement would obtain a heat price which is lower than current price of heat supplied by gas boilers serving the Bunhill heat network. As gas prices fluctuate the Council should seek a price which is index linked in order to maintain this benefit.
- 3.23 Financial risk to the Council are very low as, delivery risks (including construction) will be borne by the contractor and heat prices will be fixed below our current generation costs.
- 3.24 The supply of heat would need to be integrated into the Bunhill heat network infrastructure and interface

with the control system. The Council have conducted a detailed study to verify that this is viable and how this shall be managed.

- 3.25 A change in Government policy, such as reducing renewable heat subsidy, could make the project unviable. The contractor, or the Council, could cancel the scheme if this this is found to be the case.
- 3.26 Failing to meet the delivery timetable may result in a reputational risk to the Council if there is a delay in project launch.
- 3.27 Failure to reach a final agreement with the Canal and River Trust (CRT) on water abstraction and discharge is a risk, but the licence shall be obtained by the contractor, and early indications from CRT indicate their support.

The Employment Relations Act 1999 (Blacklist) Regulations 2010

- 3.28 The Employment Relations Act 1999 (Blacklist) Regulations 2010 explicitly prohibit the compilation, use, sale or supply of blacklists containing details of trade union members and their activities. Following a motion to full Council on 26 March 2013, all tenderers will be required to sign the Council's anti-blacklisting declaration. Where an organisation is unable to declare that they have never blacklisted, they will be required to evidence that they have 'self-cleansed'. The Council will not award a contract to organisations found guilty of blacklisting unless they have demonstrated 'self-cleansing' and taken adequate measures to remedy past actions and prevent re-occurrences. The adequacy of these measures will initially be assessed by officers and the outcome of that assessment will be reviewed by the Council's Procurement Board.
- 3.29 **The following relevant information is required to be specifically approved by the Executive in accordance with rule 2.6 of the Procurement Rules:**

Relevant information	Information/section in report
1 Nature of the service	The procurement of low carbon and lower cost heat to supply to the Bunhill heat network. See paragraph 3.1-3.5
2 Estimated value	The estimated value of the contract over the 20 year contract period is £4m at today's prices. See paragraph 3.6-3.7
3 Timetable	Late-May: Contract advertised Mid-July: Contract awarded See paragraph 3.8-3.10 and 3.18
4 Options appraisal for tender procedure including consideration of collaboration opportunities	It is recommended that the Council advertise for a competitive open tender for a Heat Supply Agreement, valued at an estimated £4 million, for the supply of heat sourced from the Regents Canal at a price lower than current supply sources. See paragraph 3.11-31.13
5 Consideration of: Social benefit clauses; London Living Wage; Best value; TUPE, pensions and other staffing implications	Supply of lower cost lower carbon heat through a Heat Supply Agreement would allow the Bunhill heat network to supply Council residents with lower cost heat and thus tackle fuel poverty and climate change. See paragraph 3.14-3.17

6 Evaluation criteria	50% Price and 50% Quality. See paragraph 3.19-3.21
7 Any business risks associated with entering the contract	The Heat Supply Agreement would seek to obtain a heat price which is lower than current price of heat supplied by gas boilers serving the Bunhill heat network. As gas prices fluctuate the Council should seek a price which is index linked in order to maintain this benefit. See paragraph 3.22-3.27
8 Any other relevant financial, legal or other considerations.	If a best value Heat Supply Agreement is not offered to the Council through an open procurement, the proposed project could be considered as part of an invest-to-save bid for Council capital investment. See paragraph 4.1

4. Implications

4.1 Financial implications:

The scheme is expected to cost £2.4m at no cost to the council. The council will purchase any heat produced at a price at least 10% less than our own generation costs. The proposal could be considered as part of an invest-to-save bid if not taken forward through a combination of DECC and/or private funding.

4.2 Legal Implications:

The Council has powers under the Local Government (Miscellaneous Provisions) Act 1976, s11 to produce and sell heat or electricity or both and the establishment of the Bunhill heat network relies on this power. The subject of this report is the purchase of canal sourced heat supply for the Bunhill heat network. The Council may rely on either the power under section 111 of the Local Government Act 1972 (which enables the Council to carry out any activity that is calculated to facilitate, or is conducive or incidental to, the discharge of any of its functions) or the general power of competence under section 1 of the Localism Act to purchase heat supply for the Bunhill heat network. The Council may enter into contracts for such supplies under section 1 of the Local Government (Contracts) Act 1997. The Executive may provide Corporate Directors with responsibility to award contracts with a value over £500,000 (council's Procurement Rule 14.2).

The Council is a utility for purposes of the Utilities Contracts Regulations 2006 No. 6 (the Regulations) where it is engaged in activity relating to the provision or operation of a fixed network which provides a service to the public in connection with the production, transportation or distribution of heat. Therefore the procurement of this supply contract may be conducted in accordance with the Regulations. The estimated value of the supply contract is above the threshold of £345,028 for application of the Regulations. Therefore advertisement in the Official Journal of the European Union is required. On completion of the procurement process the contract may be awarded to the highest scoring tenderer.

In deciding whether to appoint the selected contractor the Corporate Director of Environment and Regeneration, in consultation with the Executive Member for the Environment and Transport, should be satisfied as to the competence of the chosen tenderer and that the tender price represents value for money for the Council.

4.3 **Environmental Implications:**

There are no clear environmental impacts related to the procurement strategy; the same implications related to the construction and operation of the system will occur regardless of the model of procurement used. These implications will be assessed when choosing to award the contract or progress with the scheme.

4.4 **Residents Impact Assessment:**

The Council must, in the exercise of its functions, have due regard to the need to eliminate discrimination, harassment and victimisation, and to advance equality of opportunity, and foster good relations, between those who share a relevant protected characteristic and those who do not share it (section 149 Equality Act 2010). The Council has a duty to have due regard to the need to remove or minimise disadvantages, take steps to meet needs, in particular steps to take account of disabled persons' disabilities, and encourage people to participate in public life. The Council must have due regard to the need to tackle prejudice and promote understanding.

The initial screening for a Resident Impact Assessment was completed on 30 March 2015 and this did not identify any negative equality impacts for any protected characteristic or any human rights or safeguarding risks. The present impact on Islington residents will be limited to premises connected to the Bunhill Heating Network. The canal sourced heat supply offers heat at a lower price than we can generate it, providing further opportunities to reduce heating costs and help residents in fuel poverty.

5. **Conclusion and reasons for recommendations**

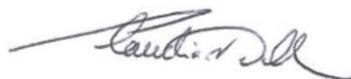
- 5.1 The Council have completed a study which has identified a significant opportunity for lower cost and lower carbon heat through recovery from the Regents Canal.
- 5.2 It is recommend that the Council advertise for the procurement of a Heat Supply Agreement for heat supplied from this heat source with a value estimated at £4m over a 20 year period.
- 5.3 It is recommended that delegated authority is granted to the Corporate Director of Environment & Regeneration in consultation with the Executive Member for Environment and Transport, for the award of the above Heat Supply Agreement.

Appendices: Summary of the Canal Heat Supply Feasibility study

Background papers: none

Final report clearance:

Signed by:



12.5.15

Executive Member for Environment and Transport

Date

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Appendix 1

Summary of the Canal Heat Supply Feasibility study

1. The study concludes that heat recovery from the Regents Canal is both technically viable and economically attractive.
2. The canal water temperature varies through the year between 25°C and 2°C. For most of the year there is sufficient heat to make heat recovery viable, especially as heat recovery from this natural store of heat is eligible for the government's Renewable Heat Incentive (RHI) which is a financial incentive for the heat recovered¹.
3. Water would be abstracted from the City Road Basin (which is connected to the Regents Canal), filtered, pumped across a Water Source Heat Pump heat exchanger, and then discharged to the Regents Canal. The Canal & Rivers Trust and the Environment Agency are both supportive of the proposed scheme. A location close the canal/basin would need to be identified for the pumping equipment.
4. Water Source Heat Pump (WSHP) technology can be utilised for the heat recovery. This technology is similar to a domestic fridge, using electricity to compress and evaporate a refrigerant to enable heat to be 'pumped' from one location to another.
5. This technology has been proven by the large scale installation at Drammen, near Oslo, Norway²³ where our consortium's contractor Star Refrigeration installed the equipment.
6. After heat has been recovered from the canal water, rather than simply returning this cooler water to the canal, the proposed scheme makes use of this as a source of renewable low cost cooling for a local IT data centre who would pay for the cooling.
7. The scheme has a net annual operating surplus of £426,000/yr and a 20 year Net Present Value of £3.6M. The proposed scheme provides CO₂ reductions of 53,000 tonnes over 20 yrs (2,650 tonnes/yr). The estimated capital cost for the scheme is £2.4M (excl. VAT). It is proposed that DECC consider providing £999,293 (excl. VAT) and Star Renewable Energy provide the remaining £1,422,237 (excl. VAT).

¹ <https://www.ofgem.gov.uk/environmental-programmes/non-domestic-renewable-heat-incentive-rhi>

² <http://www.star-ref.co.uk/star/star-leads-the-way-with-world-s-largest-natural-heating-system.html>

³ <http://www.ehpa.org/technology/best-practices/large-heat-pumps/drammen-district-heating-norway/>