

Report of Senior Project Manager, Sustainable Energy and Air Quality

Report to Chief Officer, Sustainable Energy and Air Quality

Date: 24th November 2020

Subject: Appointment of Vital Energi Ltd to undertake secondary system heating modifications in the council corporate buildings connecting to the Leeds Pipes DHN.

Are specific electoral wards affected? If yes, name(s) of ward(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has consultation been carried out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are there implications for equality and diversity and cohesion and integration?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Will the decision be open for call-in?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the report contain confidential or exempt information? If relevant, access to information procedure rule number: Appendix number: N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Summary

1. Main issues

- The council's Leeds Pipes District Heating Network has been constructed across the city to deliver low carbon heat, generated at the Recycling and Energy Recovery Facility, to a range of domestic and non-domestic customers. The first phase of the network is complete and supplying heat to tenants within council properties in the Saxton Gardens and Lincoln Green areas of the city along with the Leeds Playhouse.
- The second phase of the network was constructed throughout 2019/20 with an additional 2.5km of pipe having been installed directly into the city centre. This phase 2 extension will initially connect to the council's own corporate buildings located around the civic quarter.
- In reviewing the secondary heating infrastructure within the council's buildings it has become apparent that modifications are required to ensure that the secondary system in each building is fully compatible with and maximises the efficiency of a district heating connection.
- A bid to the Public Sector Decarbonisation Scheme (PSDS) has been submitted to cover the cost of the building connections and also the costs associated with the secondary modifications in the plant rooms. Secondary works within the plant room

of each building will be carried out by Vital Energi Ltd under the terms of the existing NEC3 contract.

2. Best Council Plan implications (see the [latest version of the Best Council Plan](#))

- Sustainable infrastructure is as one of the key priorities in the Best Council Plan, with the council having a vision of improving the resilience of the city's infrastructure whilst promoting a more competitive, less wasteful, more resource efficient, low carbon economy.
- The delivery of the secondary system modifications will help improve the efficiency of the DHN connection for each of the proposed buildings, which will contribute to the buildings becoming more sustainable through improvements in energy use and help to maximise the carbon savings that can be achieved by the DHN connection.

3. Resource implications

- In terms of capital expenditure the secondary measures modifications will be carried out using PSDS grant funding, meaning that there will be no capital cost implications for the council.
- The secondary modifications will help to increase the efficiency of the DHN connection for each building, which will reduce DHN operational costs and increase the amount of heat the DHN can supply.

Recommendations

The Chief Officer Sustainable Energy and Air Quality is recommended to give authority to spend and award a contract to Vital Energi Ltd to undertake secondary system modifications within the plant rooms in the Town Hall, Civic Hall, Central Library & Art Gallery, and City Museum, using the existing NEC3 Phase 1 DHN D&B contract valued at £541k.

1. Purpose of this report

- 1.1 This report sets out the proposals for appointing Vital Energi Ltd to undertake secondary system modifications in the plant rooms of the council's buildings that are connecting to Phase 2 of the Leeds Pipes DHN, using existing contractual arrangements and funding from the Public Sector Decarbonisation Scheme to pay for the capital cost of the work.

2. Background information

- 2.1 Phase 1 of the council's Leeds Pipes District Heating Network (DHN) is now delivering low carbon heat to tenants in council owned Multi-Storey Flats and the Leeds Playhouse. The second phase of the network is nearing completion, with a 2.5km extension into the city centre having been installed throughout 2019 - 2020 to enable heat to be supplied to an increased number of customers and allow the benefits of the network to be maximised.
- 2.2 The phase 2 extension will initially connect to 5 of the council's corporate buildings located around the civic quarter, with these being the Town Hall, Civic Hall, Central Library & Art Gallery, City Museum, and St George House. The connection works

will involve replacing existing gas boiler plant with new plate heat exchangers to enable a DHN connection.

- 2.3 The connection work will be undertaken by the council's DHN contractor Vital Energi Ltd via a compensation event under the Phase 1 D&B contract. A bid the governments Public Sector Decarbonisation Scheme (PSDS) has been submitted to secure grant funding to cover these costs.
- 2.4 During the initial design stage of the DHN it was recognised that the age of the council's buildings and their heating infrastructure may need modifications to maximise the efficiency of a DHN connection. This has been confirmed during building surveys undertaken by Vital Energi Ltd and also by Sweco UK Ltd, when conducting building surveys to identify where carbon savings can be achieved.
- 2.5 Secondary system modifications within the plant rooms at the Civic Hall, Town Hall, Central Library and the City Museum is estimated to be a maximum of £541,419. St George House has recently undergone a programme of refurbishment and as such does not require any secondary side modifications.
- 2.6 Further modifications to the secondary systems outside of the plant room are also required, however these are being developed by Sweco and being delivered by Leeds Building Services (LBS), and so are outside of the scope of these proposals.

3. Main issues

- 3.1 In October 2020 the Director of Resources & Housing approved a series of bids to the PSDS to secure grant funding for a programme of work valued at £25m to carry out renewable energy and energy efficiency schemes. PSDS grants must be spent by September 2021. A grant application was submitted to undertake the secondary measures, meaning the modifications will be carried out at zero cost to the council.
- 3.2 It is proposed the secondary modifications will be carried out by Vital Energi Ltd whilst installing the new plate heat exchangers within each building. The secondary measures work will be instructed via a Compensation Event under the phase 1 NEC3 contract. The works will not be awarded to Vital Energi Ltd until the PSDS funding has been secured.
- 3.3 Given the use of the phase 1 contract to undertake phase 2 works, there are two issues to note:
 - 3.3.1 Secondary modifications were not part of the initial requirements or included within the original value of the DHN works. However, the original tendered contract clearly set out that the contractor may be required to undertake the installation of secondary measures within the council's buildings, although as they were not part of the initial requirements, they would be discussed with the contractor when necessary.
 - 3.3.2 In addition, the phase 2 network extension was de-scoped out of the phase 1 contract, however it was included within the original contract that was subject to competitive tender.
- 3.4 Due to the obligation within the original contract for the contractor to potentially carry out work on the secondary measures, it is therefore considered that these are appropriate works under the phase 1 D&B contract for Vital Energi Ltd to undertake.
- 3.5 Given the need to ensure the heating system within each building works efficiently as a whole and maximises the benefits of the DHN connection, it is recommended that Vital Energi Ltd carry out the works as they have design responsibility for the

DHN and the building connections. Maintaining consistency across the design and installation will ensure seamless integration between the primary and secondary systems.

- 3.6 The design of the secondary modifications within the plant rooms have been proposed by Vital Energi Ltd. Design input has been received by Sweco UK Ltd as part of their commission to identify energy efficiency savings within the council's corporate buildings, and Ove Arup and Partners Ltd have also reviewed the proposed modifications as part of their commission to provide design reviews on the DHN.
- 3.7 During the detailed design phase, Vital will work closely with Sweco to ensure that the secondary modifications within the plant room and the modifications on the rest of the secondary system are well integrated and complementary.
- 3.8 For the secondary works within the plant rooms, Vital Energi Ltd will fulfil the roles of Principle Contractor and Principle Designer under the Construction Design and Management Regulations (2015). These roles will be filled by other parties for secondary works outside of the plant rooms.

4. Corporate considerations

4.1 Consultation and engagement

- 4.1.1 Consultation with key stakeholders has taken place regarding the design and installation of the secondary modifications, which will continue as the design is refined and the works are undertaken. Consultation has included Vital Energi Ltd, Sweco UK Ltd, Over Arups and Partners Ltd, Procurement and Commercial Services and Corporate Property Management.
- 4.1.2 The Executive Member for Resources and the Executive Member for Climate Change, Transport and Sustainable Development have been consulted on the proposals.

4.2 Equality and diversity / cohesion and integration

- 4.2.1 There are no significant equality, diversity, cohesion and integration impacts associated with these proposals. A screening assessment has been completed in relation to this proposal.

4.3 Council policies and the Best Council Plan

- 4.3.1 Sustainable infrastructure is as one of the key priorities in the Best Council Plan, with the council having a vision of improving the resilience of the city's infrastructure whilst promoting a more competitive, less wasteful, more resource efficient, low carbon economy.
- 4.3.2 The delivery of the secondary system modifications will help improve the efficiency of the DHN connection for each of the proposed buildings, which will contribute to the buildings becoming more sustainable through improvements in energy use and help to maximise the carbon savings that can be achieved by the DHN connection.

Climate Emergency

4.3.3 This work will help support the Executive Board commitment to achieving a 40% reduction in carbon emissions in council buildings by 2025. Carbon savings associated with a district heating connection have been calculated based on the use of heat from the Recycling and Energy Recovery Facility (RERF) as opposed to gas. The secondary system modifications will help to realise this benefit.

4.4 Resources, procurement and value for money

4.4.1 In terms of capital expenditure the proposed secondary measures modifications within the plant rooms will be carried out using PSDS grant funding, meaning that there will be no capital cost implications for the council.

4.4.2 The secondary modifications will help to increase the efficiency of the DHN connection for each building, which will reduce DHN operational costs and increase the amount of heat the DHN can supply.

4.4.3 Vital Energi Ltd will be appointed to undertake the modifications using existing contractual arrangements that have been used to construct the DHN and have been subject to competitive procurement, and so will deliver value for money.

4.4.4 The works will be overseen by officers working within SEAQ with technical support from Sweco UK Ltd and Ove Arup and Partners Ltd.

4.5 Legal implications, access to information, and call-in

4.5.1 There is no confidential or exempt information included within this report and it is not subject to call in.

4.5.2 Whilst the value of the proposal is over £500k the decision is a Significant Operational Decision, as it is a consequential decision to the recommendations approved by the Director of Resources and Housing in October 2020. These approvals related to applying for PSDS grant funding and the injection into the capital programme to undertake renewable energy and efficiency schemes.

4.6 Risk management

4.6.1 Not appointing Vital Energi Ltd to undertake the secondary system modifications within plant rooms means there is a risk of losing the PSDS funding and having the works carried out at zero cost to the council. The grant funding must be spent by September 2021 at the latest and using the existing contract arrangements means this can be achieved.

4.6.2 Not appointing Vital Energi Ltd and subjecting the work to tender would mean there is a risk associated with having another contracting party involved with the works, which could result in delay, contractual disputes, and technical issues between the DHN side of the heating system and the secondary systems.

5. Conclusions

5.1 Using the PSDS grant to fund the secondary system modifications provides a means of undertaking necessary works within council buildings to ensure that they work effectively with the Leeds Pipes DHN. By appointing Vital Energi Ltd to undertake the plant room work using existing contractual arrangements means that the design and installation of the works will be carried out by a single contractor,

which reduces design, construction and operational risks, and also ensures that the PSDS funding can be spent prior to September 2021.

6. Recommendations

- 6.1 The Chief Officer Sustainable Energy and Air Quality is recommended to give authority to spend and award a contract to Vital Energi Ltd to undertake secondary system modifications within the plant rooms in the Town Hall, Civic Hall, Central Library & Art Gallery, and City Museum, using the existing NEC3 Phase 1 DHN D&B contract valued at £541k.

7. Background documents¹

- 7.1 N/A.

¹ The background documents listed in this section are available to download from the council's website, unless they contain confidential or exempt information. The list of background documents does not include published works.