

**Report for** Cabinet 14 July 2020

**Title:** Decentralised Energy Network Pipe Supplier

**Report authorised by :** Mark Baigent, Director Housing, Regeneration and Planning

**Lead Officer:** Tim Starley-Grainger, Energy Infrastructure Manager, x1180  
tim.starley-grainger@haringey.gov.uk

**Ward(s) affected:** Tottenham Hale

**Report for Key/  
Non Key Decision:** Non Key Decision

## **1. Describe the issue under consideration**

- 1.1 Haringey Council has a programme of Decentralised Energy Network (DEN) projects. DENs are energy infrastructure which supply heat to buildings via a network of buried, insulated pipes. By connecting multiple buildings together, DENs create a single large heat load. The scale of the heat load makes it possible for DENs to source heat from technologies and/or locations which would not normally be viable for smaller loads. There are several heat producing technologies which can produce lower cost, more environmentally friendly heat but which only work at very large scale and/or particular locations. DENs make these sustainable energy sources available to customers who would not normally be able to access them
- 1.2 The Council is currently preparing outline business cases for DENs in Tottenham Hale and Wood Green. The study for Tottenham Hale has shown that the phased development in the area will require the DEN to be installed incrementally with the construction of several different parcels of the DEN will be undertaken by different parties at different times with developers installing pipes on behalf of the Council several months before the Council will be required to install pipes. This requires the Council to choose a pipe supplier well in advance of its own install so that a specification can be provided to developers to ensure a coordinated system. This procurement does not involve any spend by the Council (at this time – future spend will require additional approvals) but rather puts in place a method by which the council can ensure consistency of approach, manage quality and ensure value where a pipework system is being installed in an incremental way as is necessitated at Tottenham Hale.

## **2. Cabinet Member Introduction**

- 2.1 The Council's Decentralised Energy Network programme is the single largest contribution the Council can make to reducing carbon emissions in Haringey. This contract award to Logstor UK Ltd does not commit the Council to any spend. However, it does create a clear delivery path to allow the developers we are partnering with to deliver the project to start building the network on our behalf. Thus it clearly helps to deliver this ambition programme and the Manifesto commitment of delivering a municipal energy company to deliver affordable, low carbon energy.

## **3. Recommendations**

- 3.1 For Cabinet to confirm award of a call-off contract from the Stoke City Council DEPO framework for DEN Pipe Supplier to Logstor UK Ltd (Logstor) for a period of 3 years from 1/5/20 to 30/4/23. The contract value over the life of the contract (contract period + extension) is estimated to be £1.7m and so this falls under CSO 9.07.1d
- 3.2 For Cabinet to give delegated authority to the Director Housing, Regeneration & Planning to approve the final terms and conditions upon which the Council will enter into a call-off contract with Logstor under the Stoke City Council DEPO

## **4. Reasons for decision**

- 4.1 This appointment allows the DEN team to manage the quality and price risks associated with the incremental installation of the network.
- 4.2 It will allow the team to obtain prices from the market for incremental installation of pipe to help inform the business case so that LBH can make decisions on whether or not to proceed with the DEN project.
- 4.3 The contracts do not commit LBH to any spend at this time. Materials will be called off from the contract as and when different phases of network installation are approved.
- 4.4 This approach allows developers in Tottenham Hale to work directly with LBH's chosen suppliers and conform with LBH's quality assurance requirements.
- 4.5 The DEPO framework allows for direct award where either
- 4.5.1 The chosen supplier is the cheapest on the basis of framework rates;
  - 4.5.2 There is a need for urgency; or
  - 4.5.3 For consistency where a supplier has been used on an earlier phase

- 4.6 In this case, a direct award is recommended because there is a clear price advantage between the chosen supplier's standard rates and those of other suppliers on the framework and there is also a need for urgency so that we do not delay the developers we are working with.

## 5. Alternative options considered

To note that the recommended route is to:

- 1) nominate a single system provider that all developers must use.
- 2) the system provider to have design responsibility for interfaces across the network

The costs for these aspects are estimated at c. £1.6m for the supply of pipe materials and c.£100k for the overarching design responsibility

Installation of the pipe then has two aspects i) civil engineering (i.e. roadworks/excavation and associated site management) to allow installation of pipe and ii) installation of the pipe itself.

For works on private developers' land, typically a main contractor has already been selected (on the basis of the best price for constructing the scheme) and will be responsible for civil engineering associated with the pipe. However, the pipe installer is yet to be selected. The recommended route of nominating a system supplier still allows a mini-competition for these installation works using an approved list of installers to ensure competition.

Where LBH is the developer, the recommended route of appointing a preferred system supplier still allows options to either

- i) procure civil engineering and pipe installation separately; or
- ii) procure civil engineering and pipe installation together

Options around this are discussed below.

### **Do nothing**

- 5.1 This will lead to developers and others generating their own technical requirements for the network which will create quality and cost issues

### **Procure a single installer to install the entire network (although the installer would need to work with the main contractors on each site who would undertake civil engineering works to facilitate install)**

- 5.2 This would give maximum control to LBH but also requires developers to grant access to their sites – which raises significant contractual issues. The uncertainty over timing of the project means it is better to procure works as and when (as allowed via the preferred option) rather than procuring them up front to an assumed timetable and then varying the contract (which will come with a cost). It has been ruled out.

**Assuming the approach of appointing a single pipe supplier with responsibility for stress calculations is chosen to give continuity, several alternative routes to market were considered**

**Run a mini-competition to choose supplier from DEPO rather than direct award**

- 5.3 The DEPO framework allows for either direct award or mini-competition. A mini-competition is considered of little value given the need to avoid committing to any expenditure in the contract creates little leverage.

**Run a mini-competition to choose pipe supplier via LBH Dynamic Purchasing System (DPS)**

- 5.4 There is an option to run a mini-competition via LBH's DPS for a pipe supplier. This is considered less favourable than running a mini-competition from DEPO because it has higher overheads for LBH (it would require LBH to develop bespoke specifications, contracts and evaluation criteria) but has similar drawbacks in terms of low contract value and lack of commitment to a minimum volume meaning market interest will be low (and burden on suppliers to bid is relatively high even by DPS).

**Run an OJEU compliant procurement**

- 5.5 There is an option to run an OJEU compliant procurement from scratch but this is considered less advantageous than using either the existing DEPO f/work or the LBH DPS and has been ruled out.

## **6. Background information**

- 6.1 The proposed DEN in Tottenham Hale would serve a number of new and existing developments (see the sketch in Appendix 1). The construction of the majority of these developments is by private developers. Where the DEN is within developer land, they will construct the DEN and LBH will adopt it in the future.
- 6.2 The business case for the DEN is programmed for completion in August and is expected to come to Cabinet in December 2020. However, developers are already on site and need to at least start procurement of some aspects of the system as a matter of urgency.
- 6.3 There are four batches of DEN works which need to be installed incrementally to match with the wider development programme as shown in the table below:

<b><i>Parcel</i></b>	<b><i>Timing</i></b>	<b><i>Budget Cost</i></b>	<b><i>Length of Network</i></b>	<b><i>Installed By</i></b>	<b><i>Paid By</i></b>	<b><i>Decision to proceed with works</i></b>

DEN within Argent Sites (3-5 sections)	2021	£400k	Each section is 20m-60m	Argent (in 3-5 packages)	S106 (effectively LBH)	By AD Planning [in collaboration with Capital Board]
DEN within Ashley Gardens	2021	£100k	80m	BSD	LBH	By Cabinet as part of Approval of DEN OBC (late 2020)
DEN within Ashley Rd	2021	£500k	270m	LBH (Highways)	LBH	By Cabinet as part of Approval of DEN OBC (late 2020)
DEN Completion of Phase 1	2023	£550k	350m	LBH (DEN)	LBH	By Cabinet as part of Approval of DEN FBC (late 2021)

6.4 See also the plan in Appendix 1 which shows these parcels along with another 5 short (5-30m) final connections to customers (which will be installed by the respective customer at the customer's cost). In total, there are 18 interfaces where a section of network installed by two different parties abut against one another.

6.5 The fractured nature of the install presents two key issues:

- Quality control – LBH need to ensure the DEN is built to a high quality so that it can be adopted in due course
- Cost control - LBH is responsible for paying for the DEN (sometimes indirectly via s106 monies set aside for this) but is not always instructing these works.

6.6 This paper sets out a proposed procurement strategy for addressing these issues.

6.7 Note that most of these sections are expected to be installed in 2021 and the Council needs to determine a strategy for these sections in the short-term so that agreement can be reached with developers and Highways. The final section is not expected to be installed for two years and the strategy for procuring that can be deferred and considered as part of the wider DEN procurement.

6.8 Once the Council has entered into the contract, it would assign the contract in part to developer partners (or their contractors) to allow them to install pipework to LBH's specification under the LBH defined QA system. This assignment will be for packages <£500k and so fall under the remit of the Director of Housing, Regeneration and Planning.

- 6.9 Note also that the decision(s) required to proceed with actually spending any money on the incremental install of the DEN are yet to be made. This paper recommends a route to obtain prices and processes for the phased install, the decision to spend any money would be as outlined in the table above and so will require further Cabinet decisions.
- 6.10 LBH therefore needs to decide how it wants to specify the DEN to allow developers to procure the system. This presents issues of quality control and cost.

### **Quality Control Issues**

- 6.11 Particular issues of quality control are
- There are numerous suppliers of pipe systems – all systems are slightly different and numerous interfaces between systems can affect quality.
  - Pipe installation is specialist and should only be undertaken by qualified installers.
  - Pipes will be left unused in the ground for around 2 years before being put into operation.
  - Once put into operation, the buried pipes will expand and contract as they are heated/cooled and, although the resulting movement is small, it nevertheless introduces stresses into the network which need to be managed within each section. This needs to be coordinated where there are multiple interfaces.
- 6.12 A potential approach to deal with quality control issues is as follows:
- Require all those instructing works to use pipes from the same supplier
  - Ensure all pipe installation works are undertaken by an installer approved by the chosen pipe supplier. Where work is instructed by others, obtain a Collateral Warranty so that LBH is covered when it takes ownership of pipes.
  - Ensure a high level of testing to include testing of all joints and pressure testing of sections of pipe. Seek a suitably long defects and liability period to last from install of pipes until they will be put into operation (although note latent defects might take years to arise). This can be covered as part of the technical specification for works.
  - Ensure a single body owing a duty of care to the Council is responsible for reviewing design calculation across the network to coordinate how stress is accounted for and works are inspected to be in accordance with the design. This can be covered as part of the technical specification for works.
- 6.13 These solutions will also need to integrate with proposals to address cost control, discussed below.

### **Cost Control Issues**

- 6.14 The main concerns over cost control are:
- Key components of cost are
  - The pipe [20-25%];
  - Installation [30-40%] ;
  - Associated civil engineering works (including site management) [35-50%];

6.15 The route to market for the installation of the network affects how much control LBH has to introduce competition to these different components as shown in the table below:

<b>Component</b>	<b>Installed by developer (BSD or Argent)</b>	<b>Installed by LBH Highways</b>	<b>Installed by LBH as part of main DEN contract</b>
Pipe	Y	Y	Y
Install	Y	Y	Y
Civil Engineering (including site management)	N – will be set by developer’s choice of main contractor	Maybe – if LBH chooses to use term highways contractor, will be set by LBH’s choice of highways contractor or could procure separately	Y

6.16 Effectively where pipe install works are piggybacking on developers’ main construction contract or the LBH Highways improvement works contract, there is reduced scope to demonstrate competition specifically for the works associated with the pipe installation (although other aspects of the main contract will include aspects of civil engineering, etc. and so a degree of competition will already have occurred).

### **Recommended procurement approach**

6.17 The recommended route to market is therefore as follows:

6.17.1 Where installed by a developer<sup>1</sup>, require the developer to ask their main contractor to subcontract the pipe installation as follows:

- Use LBH’s nominated pipe supplier
- Demonstrate VFM by running a mini-competition involving [5] of the pipe supplier’s nominated approved installers
- Comply with LBH’s technical specification in terms of testing and stress calculations
- Provide a collateral warranty in a form acceptable to LBH

The civil engineering components of the costs will be fixed by Developers’ choice of main contractor. Ideally, LBH should ensure developers include

<sup>1</sup> NB this approach is for the spine of the DEN where LBH will eventually pay for the pipe and take ownership. It is recommended to take a similar approach with developers for final connections based on nominating a pipe supplier and ensuring pipes are installed by one of the pipe supplier’s approved installers to LBH’s specification. Note that while LBH will use final connections and will be responsible for maintaining them, the Council will neither pay for the installation (and so cost control is less of an issue) nor take ownership (and so Collateral Warranties are not needed).



the potential requirement to install DEN works when tendering for main contractors to minimise contractor seeking to charge unreasonable amounts for changes in scope.

6.17.2 Where installed as part of LBH highway works, use LBH's nominated term highways contractor and require them to:

- Use LBH's nominated pipe supplier
- Demonstrate VFM by running a mini-competition involving [5] of the pipe supplier's nominated approved installers
- Comply with LBH's technical specification in terms of testing and stress calculations
- Provide a collateral warranty in a form acceptable to LBH

The civil engineering components of the costs will be fixed by LBH's choice of highways contractor but presumably this contract will include transparent mechanisms for fixing these in a way which LBH considers to be VFM.

6.17.3 Where the network is installed as part of the main DEN contract, there is scope for all aspects to be subject to competition. Given this is by far the largest section of the network, will not be installed for three years and it has relatively few interfaces with the other three sections, it is recommended that the approach to procurement (including choice of pipe system) is reviewed closer to the time the contract is let.

#### **Alternative approaches**

6.18 In determining a recommended procurement approach, the following options have also been considered:

- Do nothing – this would lead to developers and Highways each developing their own approach with potential catastrophic impacts on the quality of the network and project budget.
- Procure a single contractor to install the entire network including civil engineering. Require developers (or developers' main contractors) and highways term contractor to work with this contractor. This is unacceptable to developers (and their main contractors) who will have specific contractual requirements for works. The timing and phasing of works is also uncertain meaning seeking to deliver through a single contract is complicated and the scope will be subject to considerable change which will increase cost.
- Where LBH is procuring DEN works alongside Highways works, there is an option to run a specific procurement covering both civil engineering and pipe install works together rather than seeking to procure civil engineering first and then subcontract pipe install (e.g. this route could be achieved by using the Council's term highways contractor to deliver civil engineering and a competition for the pipe install). The first option allows the entire DEN-related portion of the contract (i.e. including civil engineering, etc.) to be subject to a specific competition but may be less favourable overall as there are additional procurement overheads and the highways aspect of the project will no longer benefit from economies of scale built into the term highways contract. Note the recommendation to select a pipe system supplier allows both options and a decision can



be made in the future (although it is assumed the preference will be to use the term Highways contractor).

### **Route to Market for the Recommended Approach**

- 6.19 The recommended approach is to procure a single contract covering the following:
- **nominate a single system provider that all developers must use.**
  - **the system provider to have design responsibility for interfaces across the network**
- 6.20 In addition, LBH will need to develop a technical specification and form of Collateral Warranty although this can be developed by the DEN team including drawing on already appointed technical and legal advisors where required.
- 6.21 The LBH DEN team will then need to work with developers and Highways to reach agreement on works being undertaken to LBH's requirements.
- 6.22 In terms of procuring the contract for pipe system and stress calculations, the value of these is to be approximately £1.5m.
- 6.23 Due to the nature of the work and services, these procurements fall under the Utilities Contract Regulations 2016 where thresholds for supplies and services are c.£363k, hence OJEU will apply.
- 6.24 However, LBH is aware of a recent OJEU compliant framework procured by Stoke City Council for the supply of pipes and associated stress calculation services.
- 6.25 The DEN team has reviewed the framework and believes it is fit for purpose. It has the following features:
- It includes only reputable suppliers who all provide materials which meet LBH's requirements;
  - All suppliers include nominated approved installers to allow mini-competitions as outlined above;
  - All suppliers provide a stress calculation service
  - Customers can gain access to prices based on anticipated scope of project but do not need to commit to buying any pipes – this addresses the issue that LBH is yet to decide to proceed with the install
  - A review of the prices shows they are competitive vs. standard list prices quoted to projects
  - Customers can assign the contract either in full or in part to others by notifying the supplier – this means LBH can grant developers/contractors access to the prices obtained and still maintain quality control features of the approach.
- 6.26 There are three pipe suppliers on the framework and all of them have provided schedules of rates.
- 6.27 The framework allows for either direct award based on the schedule of rates or for a mini-competition. Given the scale of project (small) and LBH's inability

to commit to purchasing any pipe whatsoever, it is considered unlikely that suppliers will offer a discount on their listed rates and a mini-competition is thus of little value.

6.28 A direct award is therefore recommended.

6.29 In terms of internal governance, the contract value is c. £1.7m and so needs to be a Cabinet decision. It is recommended that Cabinet delegate authority to the Director of Housing, Regeneration and Planning to finalise the call-off contract.

#### **Alternative Routes to Market**

6.30 This is covered in paragraphs 5.3 to 5.5, above.

#### **Summary of DEPO pricing for direct award**

6.31 The Council's engineering advisors for the DEN programme have prepared a preliminary design for the DEN in Tottenham Hale and used this to produce a bill of quantities. Based on the bill of quantities and the standard DEPO framework rates, the standard prices for supply of the materials is as follows for each supplier on the DEPO framework:

Supplier	Nominal Price		
	Scope A	Scope B	Scope A&B
Logstor	£734k	£885k	£1,619k
Powerpipe	£790k	845k	1,635k
Isoplus	£773k	869k	£1,642k

6.32 Two scopes are considered as follows:

- Scope A – This is the minimum recommended scope of the contract to address quality control. While it covers approximately half of the network, it includes 9/10 individual packages with >15 boundaries between packages. While some of this work will be funded by LBH, the appointment of the pipe system supplier must be made before LBH has committed to the project.
- Scope B – This is the final large package of network. It will be installed in a single, larger contract and has only 4 interfaces with Scope A. It will be installed once LBH has committed to the project.

6.33 LBH could procure either

- Scope A and Scope B together; or
- Scope A and then Scope B.

6.34 Given the small number of interfaces between the two scopes, it would be possible to have a different pipe system supplier / designer responsible for network interface calculations, however this will add complexity.

- 6.35 Based on the standard DEPO pricing:
- Logstor are the lowest cost (c.£40k or 5% cheaper than second cheapest) for Scope A
  - Powerpipe are lowest cost for Scope B; however, the saving of c.£40k vs. Logstor does not justify the added complexity
  - Logstor are the cheapest overall for Scope A & B (by £16k or 1%)
- 6.36 There is a clear argument to make a Direct Award for Scope A to Logstor on Price
- 6.37 If procuring Scope A then Scope B, there is a small saving from switching from Logstor to Powerpipe for Scope B. However, the saving is not sufficient to justify the additional complexity. The DEN team would recommend a direct award to Logstor for consistency (the DEPO framework allows contracts to be extended by direct award for consistency)
- 6.38 If procuring Scope A and B together, Logstor is the lowest cost and the DEN team would recommend direct award to them.
- 6.39 In all scenarios, direct award to Logstor is recommended. For simplicity, it is recommended that LBH award a contract for Scope A&B to Logstor and the Director of HRP is tasked with finalising the contract to be based on the standard DEPO call-off contract.

## **7. Contribution to strategic outcomes**

- 7.1 The DEN programme contributes directly to delivery of the following Borough Plan objectives:
- a) To lead on delivery of an energy network where more sustainable energy is generated for use within the borough
  - b) To explore setting up an alternative local or regional energy savings company(s) that would serve our community by helping to tackle fuel poverty
  - c) To develop a plan for Haringey to be Zero Carbon by 2050

As well as supporting several other objectives.

- 7.2 Note that the majority of the DEN Programme is driven by planning policies with a strategic nature. The Council is required through policies in the London Plan to “identify opportunities for expanding existing [decentralised energy] networks and establishing new networks” and the National Planning Policy Framework requires us to “develop a positive strategy for energy from these [low carbon] sources that maximises the potential for sustainable development.”
- 7.3 Local Development Framework SP4 responds to this as the Council has committed to “promote low- and zero-carbon energy generation through
- *Establishing local networks of decentralised heat and energy facilities*
  - *Requiring all developments to assess, the potential to link into a wider network*

- *Working with neighbouring boroughs ... to explore ways of implementing sub-regional decentralised energy networks including ... in the Upper Lee Valley Opportunity Area”*

- 7.4 As suggested above, the long-term strategy is to set up neighbourhood schemes using the planning system to support customer acquisition and then to interconnect these neighbourhood schemes into a larger borough wide scheme connected to the forthcoming Energy Recovery Facility at Edmonton. This will yield significant carbon savings.
- 7.5 The driver behind the DEN programme is the Climate Emergency. The UK’s energy infrastructure needs to be upgraded to be low carbon and to meet the growing demands of the 21st Century.
- 7.6 Promotion of DENs is a high priority for BEIS and the GLA in order to contribute to regional and national Climate Change targets – hence the grant funding they have provided to LBH.
- 7.7 These contracts will deliver value for money through allowing:
  - Better rates through aggregating work into a larger contract;
  - More interest from the market in a larger piece of work;
  - Continuity in advice including lessons learned on one project being applied to another; and
  - Work to be instructed more quickly with less risk of opportunities being missed due to delay and less internal resource spent re-procuring;

## 8. **Statutory Officers comments (Chief Finance Officer, Head of Procurement), Assistant Director of Corporate Governance, Equalities)**

### Finance Comments

- 8.1 The recommendation of this report does not directly approve any spend at this time, but rather puts in place a method by which the council can ensure consistency of approach, manage quality and ensure value where a pipework system is being installed in an incremental way as is necessitated at Tottenham Hale DEN. The estimated costs associated to this proposal (contract period + extension) is estimated to be £1.7m and this will be funded from the approved capital programme 2020/21-2024/25.

### Strategic Procurement Comments RC270520

- 8.1 Under CSO 9.07.1d SP has no objections with the recommendations within this report (section 3.1) to directly call off from the Stoke City Council DEPO Framework for the DEN Pipe Supplier to Logstor for a duration of 3 years from Contract Commencement.

### Legal

- 8.2 The Assistant Director of Corporate Governance notes the contents of the report.
- 8.3 Pursuant to the Council's Contract Standing Order (CSO) 7.01(b) and Regulation 33 of the Public Contracts Regulations 2015, the Council may select one or more Contractors from a Framework established by a public body where the Council has been named in the OJEU Contract Notice as an approved user.
- 8.4 It is confirmed that the Council is identified as an approved user in the Stoke City Council DEPO Framework from which the Call-Off Contract was procured.
- 8.5 Therefore the Assistant Director of Corporate Governance sees no legal reasons preventing Cabinet from approving the recommendations in the report.

### Equality

- 8.6 The Council has a Public Sector Equality Duty under the Equality Act (2010) to have due regard to the need to:
- Eliminate discrimination, harassment and victimisation and any other conduct prohibited under the Act
  - Advance equality of opportunity between people who share those protected characteristics and people who do not
  - Foster good relations between people who share those characteristics and people who do not.
- 8.7 The three parts of the duty applies to the following protected characteristics: age, disability, gender reassignment, pregnancy/maternity, race, religion/fait, sex and sexual orientation. Marriage and civil partnership status applies to the first part of the duty
- 8.8 There are no particular equalities implications arising from the decision proposed in the report. In the operation of the contract, the contractor, as a body carrying out a public duty on behalf of a public organisation, will be obliged to have due regard for the public sector equality duty.

**9. Use of Appendices**

9.1 Appendix 1 includes a sketch of the DEN indicating how installation will be broken into different packages

**10. Local Government (Access to Information) Act 1985**

10.1 N/A

## Appendix 1      Sketch of the DEN Indicating Installation Packages



# Tottenham Hale Proposed District Heating Network

## Key Sites and High Level Network Routing

