1. **Summary**

1.1. Sutton has ambitions to become London’s most sustainable Borough and has adopted One Planet principles. The development of a Sutton Decentralised Energy Network (SDEN) utilising renewable and low carbon fuel sources will support the ambition of achieving ‘Zero Carbon’ emissions. The project will utilise waste heat from the proposed Beddington Energy Recovery Facility (ERF) and existing landfill gas engines. In addition, the project will increase fuel security and provide revenue which can be used to reduce fuel poverty.

1.2. In July 2013, the Strategy and Resources Committee (S&R) approved the development of a district heating network in Sutton, with funding of £4.5m. S&R agreed that heat supply contracts should be completed with Viridor and the Felnex developer. Delegated authority was given to the Strategic Directors (Resources and Environment and Neighbourhoods) in liaison with the Vice-Chair of S&R and the Chairs of Housing, Economy and Business and Environment and Neighbourhood Committees to progress the project.

1.3. This report now presents the results of the progress to date and outlines a revised financial model, (taking into account the significant reduction in size of the Felnex development) which demonstrates that the SDEN project remains viable.
1.4. The report recommends that the project now proceeds to procurement stage for an operator to deliver design, build, operate and maintain the heat network, subject to agreeing Heads of Terms with Schroders, which are in line with the assumptions in the revised financial model.

2. **Recommendations**

   It is recommended that the Housing, Economy and Business Committee:

   2.1. Accept the Business Case which confirms that a Sutton Decentralised Energy Network is viable, with a projected cumulative cash return over 25 years of £1.5m.

   2.2. Approves an OJEU compliant procurement process to appoint a Design and Build, Operation and Maintenance, Customer Services and Meter and Billing Contractor(s), subject to agreeing Head of Terms with Schroders in accordance with the Business Case.

   2.3. Delegates authority to the Strategic Director of Environment and Neighbourhoods, in consultation with the Strategic Director of Resources and the Chair of Housing, Economy and Business Committee to agree amendments to the Business Case that may be required, insofar as the overall parameters of the Business Case can still be achieved and to award and sign contracts with preferred bidders.

3. **Background:**

   3.1. In July 2013, the Strategy and Resources Committee approved the use of the wholly owned Special Purpose Vehicle, Opportunity Sutton Limited, to further the development of a district heating network in Sutton, with funding of £4.5m. The committee agreed that heat supply contracts should be completed with Viridor and the Felnex developer. Delegated authority was given to the Strategic Director (Resources) and Strategic Director (Environment and Neighbourhoods) in liaison with the Vice-Chair of the Strategy and Resources Committee and the Chairs of Housing, Economy and Business and Environment and Neighbourhood Committees as appropriate to progress the project in line with these recommendations.

   3.2. Sutton has an existing landfill gas installation operated by Viridor, as well as a planned Energy Recovery Facility (ERF) with a projected thermal output of 15 MW. The SDEN project proposed to use the waste heat from these facilities in a low carbon heating network, initially serving the North West of the Borough.

   3.3. LBS recognise that without their leadership and intervention to develop the SDEN it is likely that the waste heat will remain unutilised. In addition, the delivery of the project represents a viable opportunity to develop a large scale renewable energy network, with future potential heat sales as the scheme expands across the Borough and adjacent areas.

   3.4. The initial anchor load to catalyse the project is the development of the Felnex Industrial Estate. The proposed connection of Felnex to the SDEN is Phase 1 of a longer term ambition. A number of additional loads have been considered as part of the scheme expansion:

   - St Helier Hospital
   - Durand Close
   - Carshalton College/LB Sutton Offices

3.5. It is proposed that the project will be delivered by an initially wholly owned Energy Services Company (ESCo) which will be a subsidiary of Opportunity Sutton Limited (see Appendix 1).
4. **Detailed Business Case**

4.1. With the recent significant reduction in the number of buildings proposed on the Felnex site to 725 homes and a 1,800 m² food store, the original business case financial model has been reviewed. A new model has therefore been developed, reviewing all assumptions and adding new where now required. (see Appendix 2).

4.2. **Financial Model**

4.3. The outcomes of the review of the modelling process have showed that:

- Excluding debt repayment and depreciation, the cash flows from the project are positive both on an annual and cumulative basis.
- After 25 years, including debt repayments, the project generates a cash surplus of £1.540m.
- The cash generated by the project equals the capital costs after 11 years.
- The project Internal Rate of Return is 9.04%.

4.4. The assumptions and outputs of this new model have been compared with the one submitted to S&R in July 2013. The key changes affecting revenue are:

- The reduction in Felnex residential units from 777 to 725.
- The reduction of the commercial element from 15,567m² to 1,800m².
- Energy consumptions have been reduced to levels which match new expected build.

4.5. The impact is a reduction of c40% (£300k) in annual uninflated revenues at full build out.

4.6. The revised model considers operating costs in much greater detail and as a result the fixed operating costs have increased. The overall impact of these changes is a reduction in the overall gross margin (revenues less recurring operating costs) from the previously projected £557k to £296k pa.

4.7. Sensitivity analyses have also been carried out to ascertain what impact changes in assumptions have on project viability. A number of sensitivities were agreed with the LBS finance team. The sensitivity with the biggest impact is the reduction in the heat sales tariff, hence the requirement to agree Heads of Terms with Schroders, which confirm acceptance of the models assumptions before procurement commences.

4.8. **Loan Margin**

4.9. It should be noted that in addition to the cash flow that is projected, the interest rate being charged to SDEN by the Council will return additional money to the Council as SDEN is being charged a commercial rate of interest by the Council as it is a trading entity, whereas the Council will incur the lower Public Works Loan Board rate.

4.10. The Council must ensure that any loan is made on commercial rates and terms, as it must be satisfied that its on-lending does not constitute a breach of State Aid legislation i.e. that it does not provide an unfair advantage to the SDEN by offering loan finance at a lower interest rate or on better terms than would be secured by commercial competitors.

4.11. The total positive cash flow to the Council arising from this interest rate margin is c£1m over the 25 years of the project.
5. **Procurement Route**

5.1. Appendix 1 shows that the works/services elements which LBS wish to procure for the heat network are:

- Construction contract
- Operation and maintenance contract
- Customer services, including metering and billing to customers at the Felnex site.

5.2. There are two main options for the procurement process:

- Use an existing Procurement Framework
- Project specific procurement by LBS

5.3. A review has highlighted that there is no suitable framework for this project. Therefore the recommended option is a project specific procurement process. Due to the nature and value of the contract the works will need to be tendered in accordance with the European Procurement regulations and therefore advertised in the OJEU.

5.4. In terms of producing tender documentation, a suitable suite of existing documents has been identified which are available from the LB Enfield (see Appendix 3) who are undertaking a similar project. The costs for the documentation are c£95k (£75k to Enfield and £20k modification costs). If these documents were not purchased then LB Sutton would need to commission a specialist external team to produce documentation and the estimated cost for this is c£150k. It is therefore proposed that the Enfield documents be purchased for both time and cost reasons.

5.5. In addition, the Council will need a team to run the procurement process, consisting of a Project Director (part time), a Procurement Manager (full time for 9 months) and a Project Support Officer (part time) at an overall estimated cost of c£183k.

5.6. **Project Risks**

5.7. Schroders will require heat before the SDEN heat network is connected to the site, so it will be necessary to use the backup boilers on the site for the early phase (c100 dwellings). This is relatively standard industry practice where conventional boiler plant is used until the low zero carbon plant is available. The additional costs are estimated at less than £10k for 6 months.

5.8. Once the construction contracts are let then further delays and increased operating costs would be recovered from the contractor via Liquidated Damages.

5.9. To be prudent it is recommended that a sum of 10% is allowed for any contingencies which have not been identified at this stage.

5.10. **Procurement Vehicle**

5.11. It is not envisaged that the recommended procurement route will create any issues if it is commenced by LBS and is then transferred to the Opportunity Sutton Ltd subsidiary. It would be necessary to highlight to potential tenderers in the tender documentation that LBS reserves the right to do this.

6. **Impacts and Implications**

6.1. **Legal Implications**
6.1 With regards the purchase of the tender documentation from LB Enfield a draft agreement has been sent by Enfield with regards use of these documents and legal advice will be sought on the contents of the Agreement to ensure that the Council's interests are protected and that the agreement does not place any obstacles or restrictions on how Sutton want to use these documents.

6.2 With regards to the Council proposing to purchase these LB Enfield documents, the principles underlining the EU regulations of transparency, competition, equality of treatment would still apply. The market has been approached informally to ascertain whether there are alternative suites of documents available for this type of project and none have been found that are suitable. Therefore the risk of challenge in purchasing these documents without formally going out to the market is low.

6.3 With regards the procurement route there are no legal issues at this stage with what is being proposed though it should be highlighted that as of the 26th February 2015 the new EU Directives are being implemented and the impact of that implementation on this project should be discussed with the procurement team and legal advisors.

6.2. Financial Implications

6.3. The capital programme due to be formally approved by full Council on 3rd March, includes a sum of £4.6m in 2015/16 for this project.

6.4. The Council is required to charge the company a commercial rate for the loan required for the project. This is to ensure state aid rules are not breached. As a result of the margin applied to the loan there will be additional interest income paid to the Council which will amount to approximately £1.1m over the 25 year period.

6.5. The project is forecasting a surplus of £1.5m after 25 years, as the Council is the only shareholder any surplus could be paid as dividends to the Council.

6.6. The modelling includes various sensitivities to test the robustness of the financial model. The only scenario causes a negative cashflow over the 25 year period is a reduction in the heat selling price by 10% or higher.

6.7. The total costs for the delivery of a procurement process using the recommendation set out above will result in a projected overspend against existing budgets of £58k. However a second application has been made to DECC under their HNDU funding program (£101k already awarded) which is greater than the projected overspend.

7. Appendices and Background Documents

<table>
<thead>
<tr>
<th>Appendix Letter</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix 1</td>
<td>Structure Diagram</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>Description of Financial Modelling, exempt by virtue of paragraph</td>
</tr>
</tbody>
</table>

### Appendix 3

Description of LB Enfield Decentralised Energy Project

## Background Documents

- Strategy and Resources Committee Report: The Sutton Decentralised Energy Network, June 2013
- Environment and Neighbourhoods Committee Report, March 2013

## Audit Trail

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## Consultation with other officers

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<td>Legal</td>
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Appendix 1 – Structure Diagram

- Construction Contract for Network
- Operation Contract for Network and Back up Boilers
- Residential Customer Services and Metering and Billing Contract
8. Appendix 3 - Description of LB Enfield Decentralised Energy Project

8.1. The North London Waste Authority (NLWA) plant at Edmonton in the borough of Enfield has been in operation for a number of years. To date only electricity has been generated by the facility.

8.2. However, LB Enfield have decided that the heat which is currently generated but not being used should be utilised in an area wide heating network and have formed Lea Valley Heat Network Ltd (LVHN) as a wholly owned subsidiary to take the project forward to recover and use this waste heat. The LVHN project has been in development for around 2 years and is now reaching the phase where LVHN will shortly be issuing tender documents in January 2015 for three separate lots:

- Lot 1 – construction and operation of the primary heat network
- Lot 2 – operation and maintenance of satellite schemes
- Lot 3 – customer services and metering and billing

8.3. In summary the LVHN involves laying a primary heating main to the proposed mixed used Meridian Water development, from the ERF, which will be developed over a number of phases, as shown by the image below
8.4. This is very similar to the SDEN project, i.e.

- A Council owned delivery company
- Heat source is waste heat from an ERF
- First phases of consumers will not be owned or controlled by the Council and will largely consist of new build private sector led residential developments
- The Council through LVHN will purchase the waste heat, operate back up boilers and contract to sell heat supplies to these new build developments
- LVHN wish to employ contractors who will construct the network, the back up boiler plant, and then operate and maintain this equipment and provide customer services and metering and billing services to the various residential and commercial customers

8.5. This framework mirrors almost exactly the SDEN project being proposed in Sutton, albeit the LVHN project is at a larger scale due to the size of their heat source which is estimated at 70 MW and the initial phase of connection to Meridian Water which comprises 5,000 homes.

8.6. Therefore the documents and contracts for Lots 1 and 2 of the tender LVHN will issue are essentially the same form of documents as will be required for the SDEN project. Lot 2 relates to the operation of a small number of Satellite boiler plants which are not directly connected to the LVHN, which LVHN require an operator for, and are not required.