Appendix A
SDEN Business Plan - 2016

Low carbon energy for South London
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1. Executive Summary

1.1 Background

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 fund LBS services and for initiatives to reduce fuel poverty.

In July 2013, the London Borough of Sutton’s Strategy and Resources Committee (S&R) approved the Conceptual Business Case for the development of a district heating network in Sutton, with funding of £4.5m. The Strategy and Resources Committee 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 Strategy and Resources Committee and the Chairs of Housing, Economy and Business and Environment and Neighbourhood Committees to progress the project.

Following consideration of the Outline Business Case at the Housing Economy and Business Committee in March 2015, the Sutton Decentralised Energy Network project was deemed viable, with a projected cumulative cash return over 25 years of £1.54m. The committee also approved the carrying out of 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 Outline Business Case. It also delegated authority to the Strategic Director of Environment, Housing and Regeneration, in consultation with the Strategic Director of Resources and the Chair of Housing, Economy and Business and Environment and Neighbourhood Committee to agree amendments to the Outline Business Case that may be required, insofar as the overall parameters of the Outline Business Case can still be achieved and to award and sign contracts with preferred bidders.

1.2 The Business Plan

This document sets out the Sutton Decentralised Energy Network’s Business Plan to meet these stated aims based on these approvals. Specifically the Council’s plans to develop a wholly owned Energy Services Company (ESCo) to deliver this project which will be a subsidiary company of its trading arm Opportunity Sutton Limited.

This ESCo will be called Sutton Decentralised Energy Network Limited (SDEN) signifying the core business of the company being the delivery of decentralised energy networks which will use sources of low carbon heat in the Beddington Lane area of Sutton. The Phase 1 energy network will be a low carbon district heating project connecting the Viridor sources of waste heat with consumers located on the redevelopment of the Felnex industrial estate. It is projected this will return revenues from sales of heat by SDEN, at full build out of Felnex, of ~£0.5M p.a. delivering an Internal Rate of Return of 9.04% and a cumulative cash over 25 years of £1.54m.

It is planned to conclude draft Commercial Arrangements with the heat supplier and heat purchasers for Phase 1 in June 2016. This will be coupled with the completion of a market testing exercise for the delivery of the infrastructure and associated operating contracts in March 2016, to
enable a final decision to be made by officers in conjunction with designated Councillors as to whether Phase 1 of the project should proceed in quarter 1 2016/17 (June).
2. Mission Statement

The objectives of SDEN are captured in our mission statement which are:

✓ Sutton Decentralised Energy Network will provide low carbon energy to South London.

✓ The SDEN offers developers and building owners an alternative to high carbon fossil fuels that are damaging the environment.

✓ SDEN has been set up by Sutton Council as a wholly owned subsidiary to make Sutton a greener place.

✓ The cost of our low carbon energy will be the same as or cheaper than fossil fuel alternatives.

✓ Sutton Council will invest any profits into council services and measures to address fuel poverty.

SDEN will start delivering in the north east of Sutton with plans to expand across South London.
3. Overview of Phase 1

SDEN has been created to deliver supplies of very low carbon heat initially in the North East of the London Borough of Sutton, but over time these will expand to supply large areas of Sutton and also adjacent Boroughs.

We are utilising waste heat from energy sources located in the Beddington Lane area which would otherwise be wasted and rejected into atmosphere. Phase 1 of the project will supply residents on the redevelopment of the Felnex trading estate in Hackbridge. The contracts for the purchase and supply of heat are envisaged to be of 25 years in length.

SDEN is a wholly owned subsidiary of the London Borough of Sutton and it is planned that for Phase 1 the Council will retain full control and ownership.

SDEN will receive funding of circa £3.2M from the Council for Phase 1 which it is expected will be drawn down from the Public Works Loan Board.

SDEN will enter into contracts with contractors to design and build the Phase 1 heat network and subsequently provide technical operation and maintenance services. It is planned that the customer services and metering and billing solution for the sale of heat to SDEN customers at Felnex will be provided from internal Council resources which are contracted to supply these services to SDEN.

SDEN will itself therefore be an Energy Services Company (ESCo) which is selling a delivered energy service. It is currently planned that the technical operation and maintenance sub contracts for Phase 1 will initially be for a period of 5 years to allow the scheme to become established.

The key objectives and summary time lines for SDEN for the next two years are:

- Test project viability and reach financial close – by end of June 2016
- Let contracts for the construction and operation of the Phase 1 infrastructure – by end of July 2016
- Commence initial heat supplies from back-up boilers located at Felnex – October to December 2016
- Commence heat supplies through the wider SDEN network – April to May 2017
- Determine a clear plan for the first stages of Phase 2 – by end of June 2016
- Deliver first stages of the Phase 2 Plan - 2017
4. Management and Operations Structure

4.1 Governance

The Council is the single shareholder of Opportunity Sutton Limited (OSL) and it retains ultimate control of the SDEN’s business activities (SDEN being a wholly owned subsidiary of OSL).

The Council has established a specific Shareholders Sub-Committee which will meet quarterly and receive programme update reports from OSL, the parent holding company for SDEN, to ensure there is appropriate governance and oversight of the company and where appropriate, approve expenditure which exceeds the agreed parameters of delegated authority. These arrangements are set out in the Shareholder Agreements between the Council and OSL and between OSL and SDEN. By creating the management and operational structures as set out in this Section 4 the Council is delegating the day to day commercial operation of the business and the delivery of the business plan to the SDEN Directors and control and oversight from OSL Board and Shareholders Sub-Committee:

- The Executive Head of Economic Development Planning and Sustainability will receive update reports on project delivery at least monthly at scheduled programme review meetings;
- A detailed report on the development and operation of SDEN, containing financial summaries and programme risk register will be reported quarterly to the OSL Board;
- The OSL Board will present the consolidated information to the Shareholders Sub-Committee at agreed intervals. Any significant variance from the financial, programme or risk profiles of individual projects will also be reported to the OSL Sub-Committee.

Delivery of the scheme will ultimately be the responsibility of the SDEN Managing Director. The SDEN Managing Director will report, with the other SDEN Directors to both to the OSL Board and the OSL Shareholder Sub-Committee ensuring full accountability.

This framework will enable scrutiny of progress against the key project deliverables which will include:

- Expenditure against budget;
- Return on investment
- Comparison with projected programme;
- Changes to identified risks and new risks;

4.2 Management and Operational Structures

During the development of Phase 1 up to financial close it is planned that the day to day management of the project will be led by a SDEN Project Director supported by the SDEN Procurement Manager. Senior Economic Regeneration Officers will also support the project to provide an interface with Council systems and procedures.

The SDEN Project Director reports into the Head of Economic Renewal and Regeneration who provides day to day oversight for the Council.
During the delivery phase of the project it is proposed that all day to day technical service delivery will be undertaken by the external operation and maintenance contractor to be procured during 2016. The customer services and metering and billing functions will be undertaken by Council in-house resources, in the Accounts Receivables Team and the Contact Centre working with staff in the Opportunity Sutton team in Environment, Housing, and Regeneration.

4.3 On Going Operational and Development Roles

There are three key roles once the Phase 1 project development phase has been completed which need to be undertaken either by Council officers:

- **Construction Management of the Phase 1 Installation Works** – SDEN Ltd will commission the LBS Asset Planning, Management & Capital Delivery team to provide day to day project management of this aspect of the works, subject to suitable specialist technical support from time to time. The costs for this are currently within the project plan.

- **Contract Management of the Service Delivery Contractor** – at this stage the person(s) to undertake this role have not been identified or agreed. This will require typically half a day per week on average to manage the operational services delivery contractor to ensure the services are being delivered to the correct standard and to deal with issues arising. An officer of the Council who is well versed in managing service delivery contracts could undertake this role subject to initial support from the SDEN Project Director with respect to the particular services being delivered.

- **Business Development of Phase 2** – Once the Phase 2 potential developments have been defined then work will be undertaken to identify the level of resource required. This is extremely specialised work and would not support a full time role. It is expected that this role will procured in line with SDEN procurement policies and funded from an agreed business development budget, once the potential for Phase 2 has been defined.

4.4 Directors and Company Board

To function as a company it will be necessary to appoint a Board of Directors for SDEN who can lead the company to deliver the business plan whilst ensuring that it’s contracted day to day operations are meeting its annual budget and the company builds up a reputation as a professional service delivery company which takes high quality customer service very seriously.

As approved at the Opportunity Sutton Limited Sub-Committee on the 16th November 2015 an interim Board of Directors has been appointed, as structured overleaf. This structure will remain until financial close for the Phase 1 is reached.

It is important to note that in the early stage of SDEN that these will be part time roles and directors will be undertaking a number of roles and that the structure of this Board will evolve.
<table>
<thead>
<tr>
<th>Director</th>
<th>LBS Officer/External Resource and name/period (i.e. 6 months until internal resource can be located)</th>
<th>Time resource requirement, i.e. 1 day per week</th>
<th>Key Roles and Responsibilities</th>
</tr>
</thead>
</table>
| Managing & Commercial Director (MCD) | Interim position until financial close is reached | Currently allocated for two days per week to undertake all functions as SDEN Director | Overall Responsibility for:  
- The full and proper operation of the company, including reporting and attendance at the OSL Board, in accordance with the agreed business plan and specifically reaching financial closure on Phase 1  
- Developing the Phase 2 commercial plan for growing the business on a short and long term basis  
- Ensuring that whilst contracts to be entered into by the company for the sale of goods or services should be drafted to be fair to both parties, this should be achieved in a way which maximises the financial returns whilst minimising the risk to the trading company |
| Strategic Development and Council Coordination (SDCCD) | Head of Economic Renewal and Regeneration | 1 day per week | Overall Responsibility for:  
- Strategic oversight for the company, ensuring that SDEN is complying with Council procedures and standing orders  
- Stakeholder engagement and the marketing and branding of SDEN  
- Specifically identifying opportunities for connections to the SDEN network and ensuring these are progressed and where possible secured, subject to compliance with the business plan and delegated authorities  
- Ensuring that lessons are learnt from the day to day operations of the company and that these are applied to new contracts/services to be offered by the company  
- Ensuring the risk register is up to date and that the risks are reviewed and managed  
- Seeking out ways to maximise the on going profitability from the business both in terms of existing service streams but also future parallel, opportunities, i.e. electricity sale or consultancy services  
- The H&S of company operations |
| Finance (FD) | Head of Financial Strategy and Planning | 2 days per month during project development period | Overall Responsibility for:  
- ensuring that up to date and accurate management accounts are produced for the company on a monthly basis within the month end date plus […] days and providing a comparison to budget (commentary on variances should be provided by the Operations Director to ensure variances are owned by the person responsible for the day to day operation of the business)  
- liaising with funders and ensuring covenants are not breached  
- Assembling the annual budget and any business plans, but in conjunction with the commercial and operations director. The FD would normally drive this process and set meetings to ensure that these documents are prepared in a timely and accurate manner  
- arranging for the companies accounts to be audited and other statutory functions of the company to be undertaken  
- ensuring purchases are made in accordance with the approved systems and procedure and suppliers are paid in a timely manner to ensure that the company can trade without issue  
- ensuring that any company with whom the company contracts is of a good financial standing and are sufficiently robust to honour their contract as a supplier or customer  
- the payroll of the any directly employed staff |
| Operations – not required until post financial close | | | Overall responsibility for:  
- Day to day management of the operations of the business including contractors/suppliers/staff who are undertaking construction and/or operational works and developing and maintaining the company’s reputation as a reliable and professional service delivery organisation.  
- Ensuring that services the company has been contracted to provide meet, and where possible, exceed the agreed service levels  
- Ensuring that wherever possible the operations of the company are undertaken in accordance with the agreed annual budgets and where possible savings are made.  
- H&S for the business, as the day to day operations are the responsibility of this director. However, each director has a statutory obligation with respect to H&S and this should not be overlooked, i.e. the “controlling mind” of the business. |
5. Operational Resources

Office and General Business Facilities

It is proposed that SDEN uses the existing premises of its shareholder company, LB Sutton’s offices.

Website

SDEN will develop a dedicated customer centric website for the company. This will be used to clearly distinguish the SDEN Brand and convey the mission statement and proposals for scheme.

ICT and Back Office Systems

SDEN and their contractors will be required to use a number of computerised systems during Phase 1:

Computerised Planned Preventative Maintenance System (PPM System) – this system contains a log of all assets owned and adopted by the SDEN. The system will log maintenance tasks undertaken and maintain equipment records.

Metering and Billing and CRM System – it is proposed that the London Borough of Sutton’s Accounts Receivables Team (ART) undertake a billing function on behalf of SDEN. It is proposed that SDEN will enter in a contract for services with ART which will contain Service Level Agreement’s for the provision of these services.

Financial System – SDEN will need to review if the finance system operated by the Shareholder Company could be used by the SDEN. Following financial close of the project a review will be undertaken by the Directors of SDEN with the LBS Strategic Director of Resources to enable a recommendation to be made on the optimum finance system to be used by the SDEN.
6. Products/Services

In Phase 1 SDEN will be delivering:

✓ resilient supplies of low carbon heat, produced primarily from renewable resources which will be
  o in the form of hot water pumped to the customers sites via a network of buried highly insulated steel pipes
  o backed up by conventional sources of heat (produced from gas fired boilers, or thermal stores which have been used to store heat from SDEN’s renewable heat supplies)
✓ full metering and billing and customer service function to support this sale of heat. This will ensure that each end user receives a market leading customer experience with accurate and timely billing of energy together with the clear and informative documentation on the SDEN service. All of the above will be set up under a framework to at least match and where possible exceed the requirements of the impending industry led regulation via the Heat Trust

✓ heat priced to offer at least price parity compared to the alternative whole life cycle cost of heat produced from conventional sources and where possible a cost saving
7. Business Development Plan

It is planned that work will be undertaken to more clearly define Phase 2 of the SDEN scheme during the first half of 2016, culminating in a report by the end of June 2016. Upon its completion a clearly defined Business Development plan will be created to set specific business development targets.

7.1 The Potential for Phase 2

Works which have been undertaken to date to develop this plan for Phase 2 include:

- Heat mapping study undertaken by the Decentralised Energy Project Delivery Unit (DEPDU) on behalf of the Greater London Authority (GLA).
- Route proving exercise for a connection to St Helier Hospital undertaken by DEPDU on behalf of the GLA – report supplied September 2015.
- SDEN Prospectus to explain the scheme to developers and organisations considering a connection to the scheme – launched in November 2015. The prospectus will be used in discussions with potential consumers during the period allocated for definition of the Business Development plan in 2015/2016.

Looking West from the Phase 1 network, the key loads/connections which can be considered as a part of this business development plan definition for Phase 2 are tabulated overleaf for comparison with the Phase 1 development.

It is important to note that this only considers those loads identified in Sutton to the West of the Energy Recovery Facility (ERF). It does not take into account potential heat loads elsewhere in the Borough nor those of neighbouring Boroughs such as Merton and Croydon which will also be considered as a part work to define Phase 2.
As can be seen from the table above the projected heat sales for Phase 1 is only around 15% of the potential from the buildings which have been identified in this area of North East Sutton, which could be considered as a part of Phase 2. This demonstrates the relatively small catalyst anchor load which comprises Phase 1 and the significant potential of Phase 2.

<table>
<thead>
<tr>
<th>Site</th>
<th>kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1</strong></td>
<td></td>
</tr>
<tr>
<td>Felnex Trading Estate</td>
<td>3,300,000</td>
</tr>
<tr>
<td>BedZED</td>
<td>722,000</td>
</tr>
<tr>
<td>Camden Junior School</td>
<td>175,000</td>
</tr>
<tr>
<td>Carshalton High School for Girls</td>
<td>586,000</td>
</tr>
<tr>
<td>Carshalton Boys Sports College</td>
<td>1,436,000</td>
</tr>
<tr>
<td>Carshalton College</td>
<td>2,402,000</td>
</tr>
<tr>
<td>Corbet Close Development</td>
<td>342,000</td>
</tr>
<tr>
<td>Culvers House Primary School</td>
<td>203,000</td>
</tr>
<tr>
<td>Denmark Gardens</td>
<td>638,000</td>
</tr>
<tr>
<td><strong>Phase 2</strong></td>
<td></td>
</tr>
<tr>
<td>Elmwood Nursery</td>
<td>125,000</td>
</tr>
<tr>
<td>London Borough of Sutton Offices</td>
<td>1,002,000</td>
</tr>
<tr>
<td>Hackbridge Primary School</td>
<td>490,000</td>
</tr>
<tr>
<td>Muschamp Primary School</td>
<td>324,000</td>
</tr>
<tr>
<td>St Helier Hospital</td>
<td>12,750,000</td>
</tr>
<tr>
<td>Lavenders</td>
<td>2,806,000</td>
</tr>
<tr>
<td>Land Adjoining Hackbridge Station</td>
<td>344,000</td>
</tr>
<tr>
<td>Victor Seymour School</td>
<td>104,000</td>
</tr>
<tr>
<td>Wandle Valley Trading Estate</td>
<td>1,161,000</td>
</tr>
<tr>
<td>Tweedale Primary School and Children Centre</td>
<td>629,000</td>
</tr>
<tr>
<td>The Health Centre (Green Wrythe Lane)</td>
<td>128,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>27,247,000</td>
</tr>
</tbody>
</table>
8. Market/Competitor Analysis

Industry/Competitor Analysis

Currently in the UK, there are a small number of existing private sector owned and operated Energy Services Companies that are developing schemes to serve regeneration/new build projects similar to Felnex. Traditionally these will be using a source of on site energy generation such as gas fired Combined Heat and Power (CHP) located in a central energy centre.

All of these organisations will be offering a similar pricing point policy and standards of customer service to SDEN and therefore can be seen as direct competitors if they were to enter SDEN’s target area and attempt to develop rival schemes.

Competition for SDEN

At this time there are no direct competitors/alternative energy schemes to SDEN operating in the SDEN Phase 1/2 area either in terms of the above companies or any other existing ESCo’s, which could target potential SDEN customers for connection to their scheme.

However, each major development (circa 300 homes and above) taking place in SDEN’s target area represents an opportunity for a competing existing ESCo’s to develop a scheme, on a site which may have been identified by SDEN for connection. Furthermore if any such existing ESCo did commence operations in SDEN’s target area then they are at liberty to expand that scheme to adjacent developments which could present further competition to SDEN.

SDEN needs to be cognisant of such competition in the market place and put in place a robust Marketing and Sales strategy to ensure that potential customers see SDEN as the primary low carbon heart provider.
9. Financial Plan

A detailed Financial Model has been prepared for the Phase 1 Scheme and this demonstrates positive cash flow of £1.54m from delivery of the scheme.

Section 7 of this Business Plan sets out initial forecast levels of turnover and heat sales for the potential growth of the network in Phase 2, for a focused development area around the Felnex site. It is planned that during the period allowed for the definition of the Phase 2 development plan the same model will be applied to Phase 2.
10. Timeline

The development of SDEN is currently split into two distinct phases as set out below:

Phase 1 – Connection to Hackbridge Development

Following the approval of the Outline Business Case at HEB Committee in March 2015 the SDEN team are progressing a procurement process for this first stage network. It is planned that this procurement process will result in initial firm pricing from potential contractors by March 2016.

During this period it is also planned to develop commercial terms with Viridor and Schroders, for the purchase and sale of heat respectively, to enable the current financial model to be updated with the commercial arrangements from these various work streams to allow a decision to be made as to whether to proceed to contract closure for Phase 1 in by the end of June 2016.

Subject to approval to close contracts, which is projected for end of June 2016, it is planned that construction of the network would take place during 2016/17 with first heat supplies by the end of May 2017. Although if Barratt accelerate their build program as planned then it is likely that SDEN will need to adopt a portion of the on site network, back up boilers and commence metering and billing services by the end of December 2016.

Phase 2 – Expansion to a wider area network

It is planned that the potential for developing the Phase 2 network will be defined with a report on the potential completed by the end of June 2016.
11. Key Performance Indicators

The monitoring of the performance of SDEN will be achieved by way of a number of Key Performance Indicator’s measured on a monthly basis which it is intended will include:

- Comparison against target of:
  - Percentage Variable Gross Margin – variable revenues/variable costs
  - Percentage Fixed Gross Margin – fixed revenues/fixed costs
  - Overheads expenditure
  - Long term repair fund (annual review)

- Interest and Principle repayment met under facility agreement

- Levels of Bad Debt, monitoring above tolerance levels of bad debt

- Level of overdraft

- No of Customer Complaints

- Customer Complaints resolved within prescribed period

The actual level for each Key Performance Indicator will be developed once the final financial model has been agreed, and the budget has been set for the first year of operation.
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