

THE EXECUTIVE

15 AUGUST 2006

REPORT FROM THE CORPORATE DIRECTOR OF REGENERATION

ENERGY ACTION AREA IMPLEMENTATION PLAN FOR BARKING TOWN CENTRE	FOR DECISION
<p>Summary</p> <p>Last summer the Mayor of London designated Barking Town Centre as one of four Energy Action Areas across London. As an Energy Action Area the regeneration of Barking Town Centre will need to demonstrate best practice in incorporating energy efficient design, renewable energy and combined heat and power. The Executive agreed to Barking Town Centre being an Energy Action Area in June 2005.</p> <p>The Council commissioned a Low Carbon Options Study last Autumn which modelled a number of sustainable energy strategies for the town centre. This study illustrated that a community heating system that provides low carbon heat (either from Barking Power Station or a biomass/ waste CHP plant) combined with renewable energy installations is the best strategy for providing low carbon energy to the town centre.</p> <p>The Energy Action Area Implementation Plan for Barking Town Centre has been produced over the last 5 months. It sets the targets and objectives for the Energy Action Area and outlines twenty key actions for delivery. The Implementation Plan also recommends the creation of a Council-led energy services company (ESCo) to deliver sustainable energy infrastructure in the town centre and recommends undertaking a feasibility study immediately to develop the business case for the ESCo. A consultant will assist the Council over the next 6 to 12 months in developing a business case and taking the Council through the process of establishing the ESCo. Once established the ESCo would develop the finance package for the construction and operation of the community heating network. If the feasibility work is successful then the ESCo business case will be the subject of a future report to the Executive.</p> <p>Wards Affected Abbey and Gascoigne</p> <p>Implications:</p> <p>Financial:</p> <p>Revenue</p> <p>No actions in the Implementation Plan will be implemented unless budgets exist to deliver them. Where any additional costs arising from the implementation plan may be incurred by the Council these will be the subject of future reports to the Executive. Costs in 2006/07 amount to approximately £40k (for consultancy support). £10k of this is supplied from the current Spatial Regeneration budget and the remaining £30k will be sourced from external budgets – e.g. LTGDC, DCLG & GLA.</p> <p>Capital</p> <p>Capital contributions will be sought from external funding sources. The Implementation Plan identifies 14 potential external funding sources for renewable energy and community heating/ CHP projects – and these will be pursued when and where relevant. The ESCo is likely to require some asset from the council – this could be the donation of land, financial</p>	

investment or provision of staffing resources. These issues will be resolved during the development of the ESCo business plan which will report to the Executive early next year.

It should be noted that the Energy Action Area status will help the Council in securing external funding sources.

Legal:

The establishment of an Energy Services Company raises a number of legal questions for the council – and in particular its use of its well-being and trading powers, and the establishment of a local authority company. There are a number of different forms of local authority company that the ESCo could take – and the Council will need to establish which form of company it considers most appropriate and is most happy with. For example, the Council could opt for a 100% owned ESCo, but for most of the ESCos currently operating in the UK, the local authority has kept its participation under 20% (ie minority interest companies). Procurement rules and capital expenditure will also govern the operation of the ESCo and will need to be considered from the outset. These issues will be further explored during the development of the ESCo business plan which will report to the Executive early next year.

Risk Management

Environmental sustainability issues are growing in importance at the international, national and regional level and will therefore continue to grow in importance for local authorities — for example they are becoming more of an important factor in CPA assessments. Climate change and energy policy have a particularly high profile and both central and regional government (GLA) are prioritising measures that reduce carbon emissions. It is also worth mentioning that the Department for Communities and Local Government recently announced that it intends for the Thames Gateway developments to be low carbon – this Implementation Plan constitutes a strategy for low carbon development in the town centre and will provide Barking town centre with a head-start in this respect. In addition, the Mayor of London recently announced that when the London Plan is reviewed next year it will include a requirement for all new developments in London to generate 20% of their energy needs from renewable energy.

The Energy Services Company potential presents significant financial risks to the Council – and the model of ESCo that we ultimately opt for will in part be determined by the degree of risk that the Council is prepared to take on. However, the trade-off associated with reducing the potential liability for the Council is that an ESCo with greater private sector involvement will face higher rates for capital borrowing which will increase the overall costs of the community heating network. These issues will be further explored during discussions with Legal and Finance over the coming months, and in a future ESCo report to the Executive.

Social Inclusion and Diversity

The energy efficiency measures that are recommended for existing housing and buildings will help reduce fuel costs for residents and address fuel poverty in the town centre.

Crime and Disorder:

There are no crime and disorder implications associated with this report.

Recommendation

The Executive is recommended to:

1. Approve the carbon reduction target and objectives for the regeneration of Barking Town Centre;
2. Approve the Energy Action Area Implementation Plan for Barking Town Centre; and,
3. Agree to undertaking a feasibility study into the business case for an energy services company (ESCo) to deliver sustainable energy infrastructure in the town centre.

Reason

To assist the Council achieve its Community Priorities of:

- Making Barking and Dagenham Cleaner, Greener and Safer
- Improving Health, Housing and Social Care
- Regenerating the Local Economy
- Raising General Pride in the Borough

Contact Officer:	Title:	Contact Details
Jennifer Dearing	Director of Regeneration	Tel: 020 – 8227 3200 Fax: 020 – 8227 Minicom: 020 – 8227 3034 E-mail: jennifer.dearing@lbbd.gov.uk

1. Background

- 1.1 Climate change and energy policy have a particularly high profile and both central and regional government (GLA) are prioritising measures that reduce carbon emissions. The Department for Communities and Local Government recently announced that it intends for the Thames Gateway developments to be low carbon. In addition, the Mayor of London recently announced that when the London Plan is reviewed next year it will include a requirement for all new developments in London to generate 20% of their energy needs from renewable energy.
- 1.2 Last summer the Mayor of London designated Barking Town Centre as one of four Energy Action Areas across London. This Energy Action Area designation requires the regeneration of Barking Town Centre to demonstrate best practice in incorporating energy efficiency, renewable energy and combined heat and power so as to reduce carbon dioxide emissions.
- 1.3 Last Autumn the Council commissioned a 'Low Carbon Options Study' which modelled a number of sustainable energy strategies for the town centre. This study illustrated that a community heating system that provides low carbon heat (either from Barking Power Station or a biomass/ waste CHP plant) combined with renewable energy installations is the best strategy for providing low carbon energy to the town centre – and could reduce carbon emissions by 32% below building regulation requirements.

- 1.4 In December 2005 LBBD was awarded £20k by the Greater London Authority and £10k by the London Thames Gateway Development Corporation to commission consultants to undertake an Implementation Plan for implementing the energy action area and delivering the 32% carbon reductions highlighted in the low carbon study. The Implementation Plan was completed by consultants Sustainable Energy Action in May 06.

2. Proposal

2.1 Carbon Dioxide Reduction Target

- 2.1.1 The Energy Action Area (EAA) Implementation Plan for Barking Town Centre sets the target and objectives for the Energy Action Area. The EAA target is to reduce carbon dioxide emissions by 11% by 2020 compared to current levels even though the number of homes in the town centre will increase by approximately 75%. This overall reduction target includes a 32% carbon reduction target for all new development in the town centre compared to 2006 Building Regulations.

2.2 Key Elements of the Energy Action Area

- 2.2.1 The 11% reduction target would be achieved by:
- Community heating system for all the new development in the town centre served by a 'low carbon heat source' – either waste heat from Barking Power Station or a biomass or energy from waste CHP plant (to reduce emissions from new development by 22%);
 - 10% of energy needs provided by on-site renewable energy installations that generate green electricity for new developments;
 - An active energy efficiency programme for all existing buildings (to reduce carbon emissions from existing buildings by approximately 16.5%).

2.3 Content of the Implementation Plan

- 2.3.1 The Implementation Plan's twenty key actions for delivery are split into the following categories:
- **Defining the Energy Action Area** (sets the carbon target and objectives);
 - **Developing Organisational Framework and Capacity** (outlines the roles of regeneration partners and staffing resources);
 - **Setting the Planning and Policy Context** (states Planning Policy and corporate policy requirements);
 - **Financing and Delivery of the Energy Action Area** (considers appropriate financing approaches & recommends ESCo, lists external funding sources);
 - **Implementing Community Heating in Barking Town Centre** (strategic approach to establishing community heating network within phased development of the town centre);
 - **Developing the Low Carbon Heat Source for the Energy Action Area for the Longer Term** (developing a heat pipe from Barking Power Station and an energy from waste CHP plant on periphery of town centre);
 - **Embedding the Energy Action Area Requirements within key Development Projects** (considers how to include community heating and renewables within the main development sites in the town centre);
 - **Action Plan for Upgrading Existing Buildings** (models insulation measures for existing buildings & associated carbon savings);
 - **Promoting and Marketing the Energy Action Area.**

2.4 A Barking Energy Services Company

2.4.1 The main recommendation in the Implementation Plan is the creation of a Council-led energy services company (ESCo) to deliver sustainable energy infrastructure in the town centre. It will not be possible to implement the community heating system without this Barking ESCo. The Implementation Plan recommends establishing the ESCo prior to undertaking detailed technical and financial work for the heat network and CHP plant. This is because the development of the heat network will be a gradual process that connects new developments as they come forward and an heat infrastructure company needs to be in place from the outset. As the ESCo will be responsible for designing, building and operating the heat network it makes most sense for the ESCo to undertake the initial technical studies and to develop the financing. The ESCo should therefore be established immediately (over the next year) so that it can oversee the delivery of the community heating network for Barking Town Centre – including the development of a finance package for the construction and operation of the community heating network.

2.4.2 The key steps involved in establishing the ESCo are:

- Agreeing on scope & objectives of the ESCo;
- Agreeing on role/ participation of partner organisations (particularly regeneration partners)
- Investigating the potential for a joint ESCo for Barking Town Centre and Barking Riverside;
- Agreeing on structure (transfer of risk, level of council control & community participation);
- Develop preliminary business plan and ToR, legal framework & financing for ESCo;
- Enrol ESCo board of directors;
- Tender for private sector utility partner (if not wholly-owned).

A consultant will assist the Council over the next 6 to 12 months in taking us through the steps above and establishing the ESCo. We will also require expert business planning and legal assistance in developing the business plan, ToR and legal framework for the ESCo. £30k will be spent and funded by the Spatial Regeneration Division in covering the costs for this work.

2.5 Community Heating Network for the Town Centre

2.5.1 As outlined above, a community heating network supplied with heat from Barking Power Station or from an energy-from-waste CHP plant can reduce carbon emissions by 22%. The community heating network will require (hot water) piping throughout the town centre which connects the key regeneration sites at the Lintons, London Road, the Station Quarter, Town Square, Fresh Wharf and the Gascoigne Estate. The Implementation Plan outlines the skeleton strategy for building-up the heating network over time and proposes that the Barking ESCo coordinates, designs and oversees implementation of the heat network.

2.5.2 The Implementation Plan recommends that the Council begin the initial process of planning the heat network because the ESCo will take a year to set-up and a site for an interim heat source for the developing heat network needs to be identified immediately. A short technical study will be required to calculate the necessary size of two small interim gas boiler plants so as to identify and secure one or more town centre sites for the plant. These sites can then be allocated to the ESCo. The interim gas boiler plant would become back-up and top-up boilers when the larger heat network supplied by Barking Power Station is operation. The Spatial

Regeneration Division will allocate £10k funding from within existing budgets for the interim gas boiler plant study.

- 2.5.3 The northern and southern halves of the town centre have differing characteristics that will probably affect the heat network requirements; the north part consisting of the smaller development sites of the Lintons, London Road, the Station Quarter, and Town Square and the south part consisting mainly of the large development sites of the Gascoigne Estate and Fresh Wharf. The heat network will be simpler to install in the southern part of the town centre – however, town centre heating systems have been installed in other parts of the country such as Southampton, Nottingham and Sheffield.

3. Financial Implications

Costs in 2006/07 amount to approximately £40k (for consultancy support). £10k of this is supplied from the current Spatial Regeneration budget and the remaining £30k will be sourced from external budgets – eg LTGDC, DCLG & GLA. The Energy Action Area is a partnership project and is not solely being implemented by the Council – these other key partners will need to financially contribute to the project.

No actions in the Implementation Plan will be implemented unless budgets exist to deliver them. Where any additional costs arising from the implementation plan may be incurred by the Council these will be the subject of future reports to the Executive.

3.1 Revenue Issues

- 3.1.1 The Implementation Plan contains 20 key actions and therefore requires staffing resources - these will be provided by the Spatial Regeneration Division. The Environmental Sustainability Team will coordinate the delivery of the Implementation Plan and the Actions are divided amongst the Division. An initial allocation of the actions and an estimation of time requirements has been undertaken – and the Actions that can be postponed/ taken forward at a later date have been identified.
- 3.1.2 The establishment and operation of an Energy Services Company will not be a simple exercise and it will require a lot of work/ officer time – and support will be required from the Council's Legal and Finance divisions. The steps involved in establishing an ESCo are outlined in more detail below. Capital costs associated with establishing the ESCo are listed under Capital Issues below.
- 3.1.3 It should be noted that the Energy Action Area status will help the Council in securing external funding sources.

3.2 Capital Issues

3.2.1 Capital Costs related to the Energy Action Area

Funding will be required (yet to be accurately quantified) to progress some of the actions – and funding sources will need to be identified and secured for each of these actions as, and when, they are progressed. The Implementation Plan identifies 14 potential funding sources for renewable energy and community heating/ CHP projects – and these will be pursued when and where relevant. For

example, a landmark renewable energy building in the town centre will require external funding to assist with the additional development costs of the large number of renewable energy installations – the greatest cost to the Council here will be in terms of officer time spent on compiling funding bids (see revenue issues above).

It should be noted that the Energy Action Area status will help the Council in securing external funding sources.

3.2.2 Capital Costs related to Renewable Energy

Developers in the town centre will carry the costs of the renewable energy installations – our planning policy already requires developers to generate 10% of building energy needs from on-site renewable energy. However, a few landmark renewable energy buildings will require extra funding to increase the installation level – this will be sought from suitable external funding sources.

3.2.3 Setting Up the ESCo

Before establishing the Energy Services Company, £30k will be spent by Spatial Regeneration on developing the business planning, legal framework and terms of reference for the ESCo (see £40k 06/07 spend outlined above). A consultant will assist the Council over the next 6 to 12 months in developing a business case and taking the Council through the process/ steps of establishing the ESCo (see steps outlined in 2.4.2 above). The ESCo is likely to require some asset from the council – this could be the donation of a small piece of land for a boiler plant, financial investment or provision of staffing resources. This would need to be considered in the ESCo feasibility study and agreed prior to the establishment of the ESCo. (The Council has already begun discussions concerning the establishment of a public sector company in partnership with the LTGDC to deliver the regeneration of Barking Town Centre). These issues will be resolved during the development of the ESCo business plan which will report to the Executive early next year.

3.2.4 Capital Cost of the Community Heat Network

The capital cost of the community heating system will not be borne by the Council. Once the ESCo is established it will need to develop a financing package for the community heating network – our energy strategy study for the town centre calculated that the total extra capital cost of the community heating network with back-up boilers (compared to conventional individual gas boiler heating systems in all new developments which has a total cost of £31million) is £6million across the 7,000 new homes that will be built in the town centre. This is the lowest cost way of reducing emissions from the new development. The ESCo will need to fund this £6 million extra capital cost and the other £31million will be paid by developers in the normal way as most of it relates to kit in the buildings. The ESCo can source the £6M either through bidding to identified funding pots or through borrowing (which will ultimately place the cost on Barking Town Centre residents and businesses through their heating bills). These options will need to be thought through carefully as social outcomes for residents will be as important as the environmental outcomes of the Energy Action Area. The development of a 'heat main' from Barking Power Station is not included in this £6million cost and neither is the cost of the alternative biomass/ energy-from-waste CHP plant. These have been calculated in the study but it is anticipated that they would not be developed by the Barking ESCo.

- 3.2.5 One of the key actions listed in the Implementation Plan is to develop an external funding strategy for the Energy Action Area and ESCo (this funding strategy will be based upon the 14 external funding sources listed in the Implementation Plan document).

4. Consultation

4.1 Councillors

Portfolio Holders

The following Portfolio Holders have been advised of the proposals:

- Councillor Milton McKenzie, Executive Member for Environment & Sustainability
- Councillor Kallar, Lead Member for Regeneration

Ward Councillors

The following Ward Councillors have been advised of the proposals

4.2 Officers

The following Officers have seen this report and are happy with it as it stands.

Spatial Regeneration Division

Regeneration Board

Spatial Planning and Environmental Sustainability Group

Area Regeneration Group

Finance

Alexander Anderson, Head of Finance (Regeneration)

CS

Muhammad Saleem, Solicitor to the Council

Robin Hanton, Corporate Legal Manager

4.3 External

Greater London Authority (London Energy Partnership)

London Thames Gateway Development Corporation

Background Papers

- Implementation Plan for Barking Town Centre Energy Action Area, June 2006
- Implementation Plan for Barking Town Centre Energy Action Area, June 2006 – List of Actions and Tasks
- Low Carbon Options for the Regeneration of Barking Town Centre, September 2005
- Barking and Dagenham Sustainable Energy Strategy, September 2005