

## **Investment & Performance Board (IPB)**

Date of IPB meeting: **23 April 2013**

Title of paper: **Decentralised Energy Project Delivery Unit**

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Cleared by: (name  
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Classification: **Public**

### **1. Executive Summary**

- 1.1 The Decentralised Energy Project Delivery Unit (DEPDU) is a three-year programme set up in August 2011 with €3.3m funding, 90% of which was secured from the European Investment Bank's ELENA facility.
- 1.2 The programme provides London Boroughs and other project sponsors with technical, financial and commercial assistance to develop and bring DE projects to market.
- 1.3 The GLA has a contractual target with the EIB to deliver £67.23m of DE projects to market before the 3rd of August 2014. As of today, seven DE projects have been taken to market, together representing £42.3m (64% of the final target). In addition, the DEPDU is also currently supporting the development of an additional 22 projects with a combined value of £304m.
- 1.4 Of these, five are in advanced stages of development, and are expected to be brought to market within the following 12 months. They represent an additional £28.5m giving a total forecast of £71.6m of projects, which would exceed the ELENA target by £4m, around 6%.

### **2. Recommendation**

- 2.1 That the Board note this progress report.

### **3. Introduction and Background**

- 3.1 The Mayor of London is committed to delivering 25% of London's energy supply by decentralised energy (DE) by 2025. To achieve this ambitious target, a DE programme has been developed to facilitate and accelerate the uptake of district heating.

- 3.2 The programme initially focused on identifying opportunities for district heating networks through heat mapping and energy masterplanning as well as building capacity within local authorities to deliver DE projects and to secure planning policies that encourage and where appropriate require DE in new developments. This initial programme, which ran from 2008 to 2010, was called Decentralised Energy Master Planning (DEMaP).
- 3.3 The London Heat Map ([www.londoheatmap.org.uk](http://www.londoheatmap.org.uk)), which helps identify decentralised energy opportunities, was central to this.
- 3.4 The next logical step in the Mayor's vision to support the expansion of a more sustainable, secure, cost-effective and low to zero carbon energy supply in the capital was the Decentralised Energy for London programme.
- 3.5 This three-year programme was set up in August 2011 with €3.3m funding, 90% of which was secured from the European Investment Bank's ELENA facility, and provides London boroughs and other project sponsors with technical, financial and commercial assistance to develop and bring decentralised energy projects to market.
- 3.6 To deliver this programme, which will predominantly look at district heating schemes supplied from combined heat and power (CHP) and sources of waste heat, the GLA have appointed a team of technical, financial and commercial specialists (the Decentralised Energy Project Delivery Unit, or DEPDU) from Ove Arup.

#### 4. Issues for consideration

- 4.1 The GLA entered into a grant agreement with the European Investment Bank (EIB) on 3<sup>rd</sup> August 2011. The contractual target is to deliver £67.23m of Decentralised Energy (DE) projects to market before the 3<sup>rd</sup> of August 2014. The following projects as of 31<sup>st</sup> December 2012 have been taken to market through the GLA's Decentralised Energy for London programme and, as agreed with the EIB as eligible projects, the LDA's Decentralised Energy Delivery programme. Together, they represent £42.3m, or 64% of the final ELENA target.

Project	Eligible CAPEX (£)	Construction completed	CO <sub>2</sub> savings (t/year)	Project stage
Islington Bunhill Phase 1	£6,499,107	2011	2,950	Operational
Cranston Estate	£7,800,000	2011	1,200	Operational
Crystal Palace CHP	£1,490,000	2011	1,850	Operational
Olympic Fringe Extension	£1,350,000	2011	960	Operational
Royal Free	£6,073,621	2012	4,060	Operational

Brent South Kilburn	£17,170,000	Unknown*	835	Procurement
Lewisham Goldsmiths College	£1,911,706	2014	947	Construction
<b>TOTALS</b>	<b>£42,294,434</b>	-	<b>12,800</b>	-

\* The procurement of a concession contract is now going to be through competitive dialogue following advice from Brent Council's new lawyers. DEPDU hosted meetings with all bidders to assist the creation of tender documentation prior to the dialogue process.

- 4.2 As of today, five of these projects are already in operation, saving approximately 11,000 tonnes of CO<sub>2</sub> per annum. When fully developed and in operation, these projects will contribute with 4.7 MW of installed electrical capacity (and 35.7 MW of installed thermal capacity (enough to provide heat and power to 6,000 homes) to London's generation from DE sources and will save up to an estimated 12,800 tonnes of CO<sub>2</sub> per annum.
- 4.3 The EIB has yet to approve the above investment levered of £42.3m before proceeding with the interim payment. Final clearance is expected during April 2013.
- 4.4 In addition, the DEPDU is also currently supporting the development of an additional 22 projects with a combined value of £304m. Of these, five are in advanced stages of development, and are expected to be brought to market within the following 12 months. They represent an additional £28.5m giving a total forecast of £71.6m of projects delivered to market which would exceed the ELENA target by £4m, around 6%.

Project	Estimated CAPEX (£)	Construction completed	CO <sub>2</sub> savings (t/year)	Project stage
Euston Road	£7,025,000	2014	4,594	Procurement
Westminster PDHU / Whitehall	£5,480,000	2015	5,500	Business case
SELCHP	£6,000,000	2013	3,395	Construction
LSIP	£2,000,000	2014	1,584	Procurement
Haringey North Tottenham	£8,060,000	2016	5,148	Pre-feasibility
<b>TOTALS</b>	<b>£28,565,000</b>	-	<b>20,200</b>	-

- 4.5 When fully developed and in operation, these projects will contribute with 3.2 MW of installed electrical capacity and 90 MW of installed thermal capacity (enough to provide heat and power to 14,000 and 4,500 homes respectively) to London's generation from DE sources and will save up to an estimated 20,200 tonnes of CO<sub>2</sub> per annum.
- 4.6 In addition to this, the programme is being influential in leveraging other funding from public and private parties to carry out preparatory work such as Energy Masterplans (EMPs) and Feasibility Studies in advance of being supported by the DEPDU at more advanced stage of project delivery. Examples are EMP for

the following London boroughs: Brent, Kingston, Sutton, Redbridge, City of Westminster, Wandsworth, Havering and Newham.

- 4.7 The programme also includes the implementation and delivery of strategic pieces of work such as the Licence Lite agreement and the GLA publication 'District Heating Manual for London', which is available for download from the GLA and London Heat Map websites and for which a reviewed and final version will be published by end of October 2013.
- 4.8 The programme is managed within budget with no overspend or underspend to date. We do not forecast any additional funding in order to meet the contractual target with the EIB.
- 4.9 This paper does not include projections on jobs created. However, it is our intention to incorporate estimates of jobs created for future reporting and we will work with GLA Economics to establish a robust methodology.

## **5. Risks arising / mitigation**

- 5.1 Risks which may arise during the programme implementation are mainly attributable to the fact that the EIB may require the partial or total repayment of the ELENA funding if the DEPDU fails to achieve leverage of 25 times the of the contract value of £67.23m in terms of projects brought to market. Risks can be divided into two categories:
  - a. Those projects already taken to market
  - b. Those projects still under development and not yet taken to market
- a. The European Investment Bank has yet to approve the £42.3m of investment levered by the 7 projects taken to market to date, as per Interim Report submitted by the GLA in January 2013. Final clearance from the EIB is expected during April. Second instalment from the EIB (approximately £806k) is conditional to the approval of the Interim Report. The risk of non-approval is judged to be low. Mitigating measures relate to the pipeline of alternative DE projects to a value of £304m.
- b. Over the past 16 months the main problems and risks identified are:
  1. DEPDU (consultant team) not performing. This risk has been mitigated by:
    - Constantly monitoring DEPDU performance through attending the consultants' offices one day per week.
    - Reporting every Period to showing progress of each DE project and forecast development expenditure against forecast.
    - Convening a monthly project board meeting with the consultant's director and programme manager to review and address progress and issues arising.
    - 12 months break clause in the contract between the GLA and Ove Arup which will allow the GLA to replace DEPDU if not performing.

2. Inadequate levels of understanding / internal processes / buy-in from the project sponsor (i.e. the relevant Local Authority). While enthusiastic about the prospect of low-carbon energy schemes, some sponsors may not necessarily comprehend the commitment required to deliver a DE scheme. They may not possess the necessary capacity to adequately support project delivery or senior level commitment or authorisation to take a project to market. This risk has been mitigated by requiring the project sponsor receiving support from the DEPDU to enter into a Memorandum of Understanding with the GLA which has director level.
3. DE projects receiving DEPDU support not being fundamentally viable. This risk is mitigated by prospective stakeholders carrying out robust pre-feasibility analysis in order to prioritise and develop only DE projects with good chance to be delivered.

## 6. Financial comments of the Executive Director Resources

- 6.1 As this IPB report is to provide the board with an update on the progress of ELENA Decentralised Energy Project Delivery Unit (DEPDU) there are no financial implications to note.
- 6.2 The project is within the agreed budget and for information the table below shows spend since the start of the project and budget for 2013-14 to 2014-15.

	2011-12 (Actual £)	2012-13 (Actual £)	2013-14 (Budget £)	2014-15 (Budget £)	<b>Total (£)</b>
Expenditure	523,000	895,974	896,000	373,000	<b>2,687,974</b>
Income (EIB funding)	-523,000	-805,974	-806,000	-283,000	<b>-2,417,974</b>
GLA contribution	0	90,000	90,000	90,000	<b>270,000</b>

- 6.3 As mentioned in paragraph 5.1 above, the European Investment Bank has yet to approve the £42.3m of investment levered by the 7 projects taken to market to date, as per the Interim Report submitted by the GLA in January 2013. Final clearance from the EIB is expected within the month of April, with the second instalment from the EIB (approximately £806k) conditional to the approval of the Interim Report.
- 6.4 Any changes to this proposal must be subject to further approval via the Authority's decision-making process.
- 6.5 The Environment Programme Delivery Team within the Development, Enterprise and Environment Directorate will be responsible for managing this project

## 7. Legal Comments

- 7.1 Not applicable

## 8. Next steps

8.1 The next steps following consideration/in-principle approval by IPB are summarised below:

<b>Activity</b>	<b>Timeline</b>
EIB formal approval of investment levered to date and fund transfer	30/04/2013
Forecast for meeting EIB contractual requirements (£67.23m DE projects brought to market)	31/12/2013
ELENA programme finishes	03/08/2014

### Appendices:

- A. *Period cash-flow diagram*
- B. *Cumulative cash-flow diagram*