

LOCAL ENERGY ACCELERATOR

LONDON BOROUGH OF BARKING & DAGENHAM

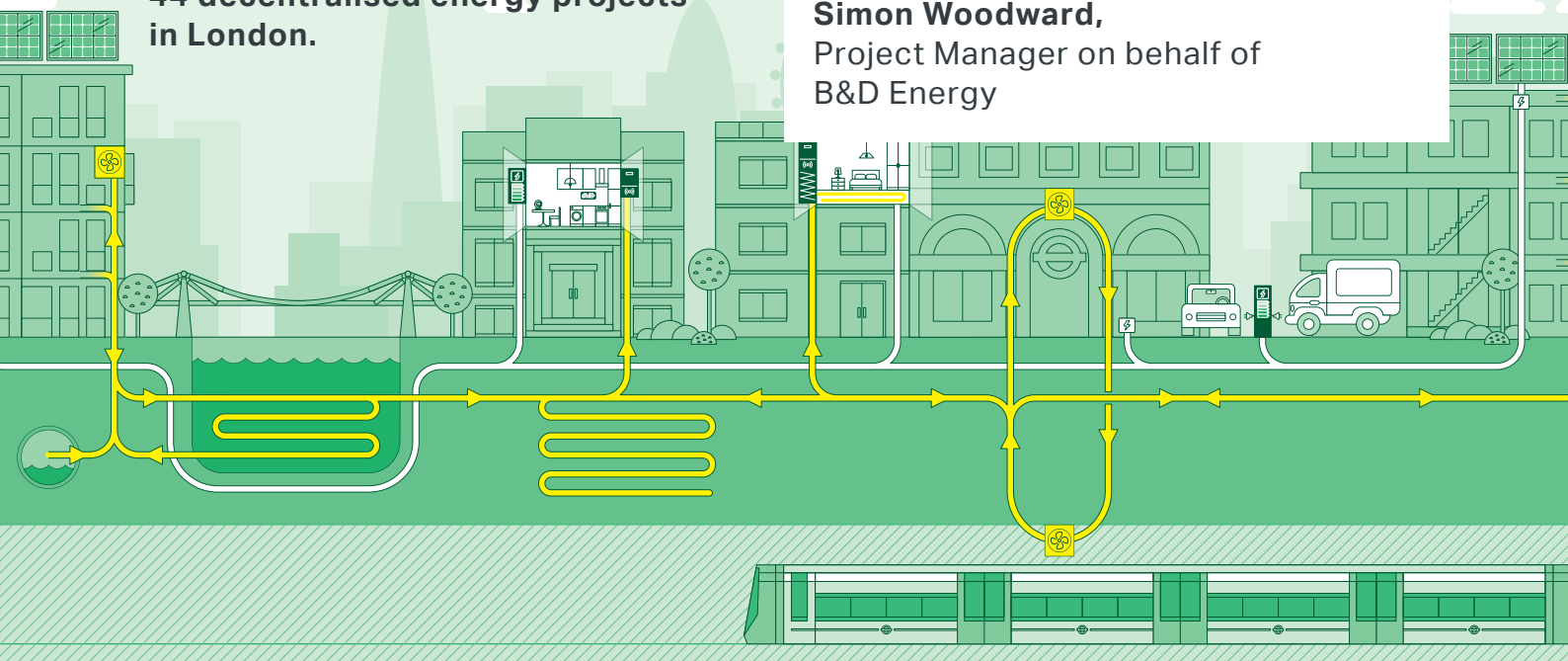
Becoming the 'green capital of the capital'

WHAT IS LEA?

The Local Energy Accelerator (LEA) supports the development of clean and flexible local energy projects in London to transform the way energy is generated, supplied and used in buildings and transport. LEA is a £6m programme co-funded by the Mayor of London and the European Regional Development Fund (ERDF). It is an extension to the Decentralised Energy Enabling Project (DEEP) which supported 44 decentralised energy projects in London.

"In 2018 the London Borough of Barking & Dagenham declared its ambition to become the 'green capital' of London. The implementation of clean, localised energy networks which use renewable heat sources to supply low carbon heat across the borough is central to this. But with high development costs, lengthy procurement processes and time constraints, we faced a challenge in delivering these. The Local Energy Accelerator, and preceding Decentralised Energy Enabling Project, has provided support for us to do so and drive forward the council's green ambitions."

Simon Woodward,
Project Manager on behalf of
B&D Energy



B&D Energy Limited – the special purpose vehicle (SPV) owned by the London Borough of Barking & Dagenham – was established to decarbonise the borough as part of the council’s overarching environmental strategy and plan to become carbon-neutral by 2050. Central to this is establishing district energy networks to supply low carbon heat to residential and commercial properties.

Through initial heat mapping work across public buildings and development sites, B&D Energy identified seven opportunity areas in the borough. To date, work has progressed on two local, decentralised energy networks – in Barking Town Centre and at Becontree – and

ambitious plans to continue rollout over the coming years are in place, which is being made possible by support from the Local Energy Accelerator (LEA).

In implementing these schemes, B&D Energy faced a number of challenges which LEA supported on. In Barking Town Centre, limited space within the borough for a new energy centre and restricted road access necessitated detailed design development which lengthened the planning process. On both schemes B&D Energy also needed to effectively communicate to internal stakeholders across the local authority the need for, benefits of and process required to implement district energy networks.

HOW LEA HAS SUPPORTED THE PROJECTS

LEA has supported B&D Energy throughout the lifecycle of both projects, from initial preparation of business plans through to scheme development and implementation.

- **Early-stage development** – building on initial heat mapping work and identification of sites, LEA supported B&D Energy in preparing business plans for both projects, techno-economic modelling and helping to overcome the planning and design complexities
- **Procurement processes** – through the support of expert consultants, LEA supported the B&D Energy team to develop and manage lengthy procurement processes
- **Relationship building** – LEA helped engage customers, partners, development owners and suppliers. This included articulating the benefits of district energy networks to internal stakeholders across the council and ensuring the planned schemes were widely understood across the authority, as well as negotiating heat supply arrangements with developers
- **Funding** – faced with high capital costs, LEA provided direct funding for the development lifecycle and project management and assisted B&D Energy in securing wider sources of capital grants and loans including from the government-funded Heat Networks Investment Project (HNIP)

BARKING TOWN CENTRE

Gascoigne East Energy Centre



As the largest scheme of the initially identified areas, B&D Energy's ambitions at Barking Town Centre included creating a network to supply low carbon heat to residential properties and commercial space in the town centre, first using energy generated by the Gascoigne East Energy Centre and then building a brand-new energy centre to supply the area.

Space constraints created a major blocker to the delivery of the new centre. B&D Energy benefited from the expertise of consultants across the LEA framework, helping the company to develop the new Strategic Barking Town Centre Energy Centre in North West Barking, which will supply low carbon heat to over 8,000 homes and 65,000 m² of commercial space.



453,372
CO₂e tonnes
saved over project
period of 40 years



8,000 homes
and 65,000 m²
of commercial
space serviced



30GWh
per year at full
build out

BECONTREE HEATH



73,239
CO₂e tonnes
saved over project
period of 40 years



170 homes
and one leisure centre
serviced

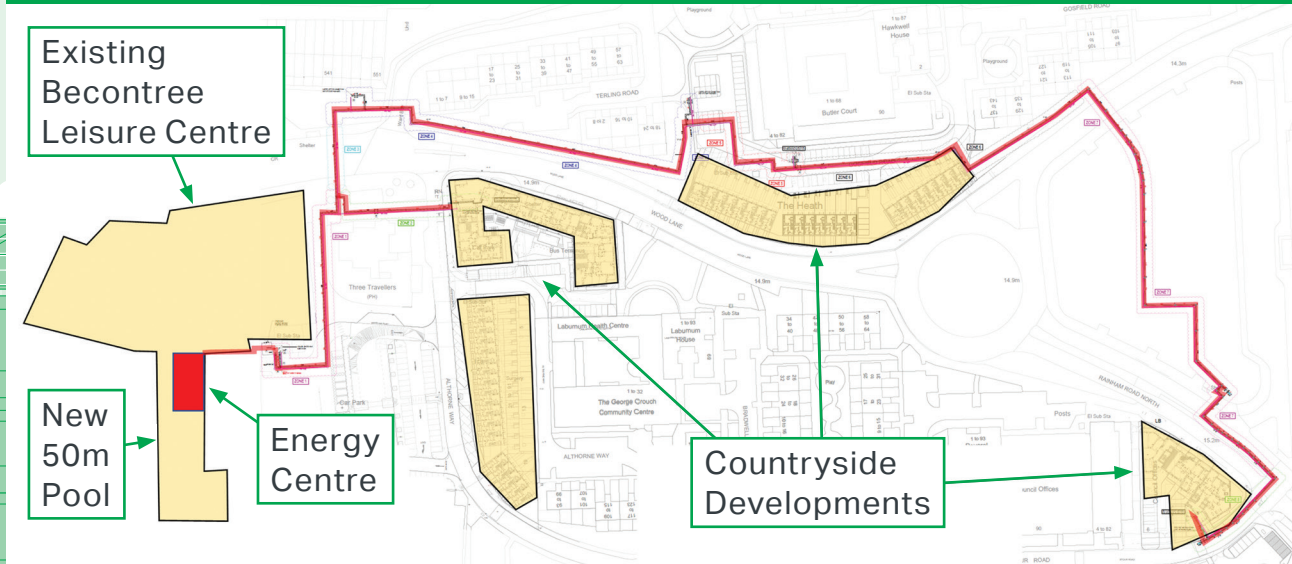


3GWh
per year at full
build out

At Becontree in Dagenham, B&D Energy has built a heat network which connects Becontree Leisure Centre. The site includes leisure facilities and an Olympic-sized swimming pool along with 170 homes as part of a new-build development by Countryside.

The ambition is to expand this scheme to serve the wider area, including schools and additional new-build homes.

Map showing how leisure centre connects to residential properties



The Local Energy Accelerator supports zero-carbon decentralised energy in London, with eligible organisations able to benefit from fully funded (excluding VAT) technical, commercial, legal, strategic and project management services. Find out how you can benefit by contacting lea@london.gov.uk