

GRAYLINGWELL PARK DISTRICT HEATING SCHEME

CASE STUDY

District Heating Scheme forming part of the regeneration of an 85-acre former Victorian hospital undertaken by Linden Homes.



CLIENT: GALLIFORD TRY

CONTRACT VALUE: £1.25M



PROJECT OUTLINE

At the time the project created the UK's largest net zero carbon development with 780 new/refurbished dwellings, 40% affordable housing, 11,000m² non-housing. The heat network, valued at £7.2m, involved over 12 km of buried mains and the installation of over 780 hydraulic interface units. The energy centre and network development programme has a phased approach with a final completion date of 2019.

KEY PROJECT INFORMATION

Project Scope

Eneteq was engaged by the client from project inception by developing the Net Zero Carbon and Code level 6 compliant energy strategy and technical feasibility. This appointment was then extended to include preparation of the detailed financial model, customer supply contracts, ESCo agreement and construction contracts. Eneteq then secured the contract to manage the design and construction of the energy centre and the contract for the site wide heat network design and construct which included planned and operational maintenance provisions for the first 5 years of operation.



THE DISTRICT HEATING NETWORK SPECIALISTS

Outputs

A complete site wide energy strategy developed to achieve a code level 6 net zero carbon solution which included a 2MW wind turbine, Solar PV, building fabric improvements and a site wide gas CHP powered district heating network.

Preparation and agreement with future funders of a bankable financial model for the funding of the CHP powered district heating network.

Input to the legal team regarding the legal framework for the district heat network including preparation of ESCo agreement, Energy Centre lease, D&C Framework, Customer Supply Agreements, Operations and Maintenance Contracts, Gas Supply Agreement, Metering and Billing Contracts, Plant Warranties, and Equipment Guarantees.

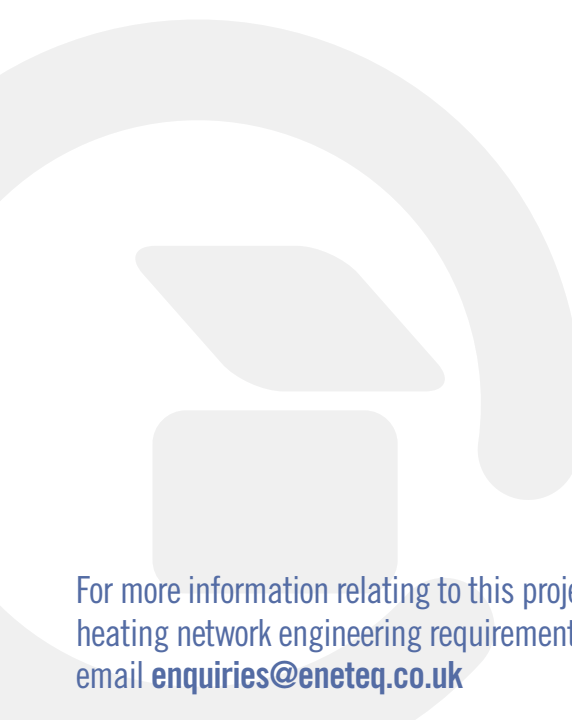
Design management and coordination for the energy centre including BMS integration, plant sizing and selection, special coordination, utilities connections and parasitic energy planning.

Design and construction of the heat network including routing, heat loss, expansion, network resilience, connection detailing, service coordination, civils detailing and pipe sizing. This was the first scheme in the UK to utilise twin pipe with diffusion barrier; reducing network losses and optimising construction costs.

Planned and reactive maintenance provision to the energy centre plant and heat network for the initial 5 years of operation

Management of the billing and metering process ensuring metering is accurately received, co-ordinated and the billing structure is correctly interpreted to the customer. Management of customer registration and coordination with the project housing association regarding late payment, bad debt and tenancy changes.

Analysis of energy centre operation, gas consumption and system optimisation, to ensure efficient and profitable operation of the scheme as a whole as the new phases come on line introducing new customers.



For more information relating to this project or to discuss your own district heating network engineering requirements, please call **01327 770170** or email **enquiries@eneteq.co.uk**



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