

Section E

Identifies other potential locations for energy centres from which thermal and electrical energy could be produced and distributed to the town centre and any possible outlying residential areas

Based upon our opportunities and constraints analysis for the decentralised energy network, as shown in previous sections of this report, we have identified three energy zones of customers. These zones are:

1. Zone 1: South Croydon
2. Zone 2: East Croydon
3. Zone 3: West Croydon

It makes practical sense to serve each of these energy zones with energy from energy centres located within the zone it serves.

Zone 1: South Croydon Energy Centre

There is currently a basement plantroom in Taberner House, which serves Taberner House above and provides hot water for heating and domestic hot water to the L-shaped building, the Town Hall and the Library.

This location offers many advantages to an energy centre, these include:

- High floor to ceiling height
- Existing precedent for ventilation to outside, via grilles, for boiler air make-up, chiller refrigerant vent and purge and general cooling ventilation
- Access for maintenance plant removal and replacement
- A new tall building proposed above in which to incorporate a boiler/ CHP engine flue to exhaust at roof level, high enough to address pollution disbursement and air quality issues.
- Access for vehicular delivery off Fell Road
- Plant access for maintenance air movement
- Local to energy demand
- Ease of egress for energy pipes out into Queen's Gardens and out under Croydon flyover
- Potential link route identified for pipe connection to the Rolls Royce power station

Zone 2: East Croydon Energy Centre

The proposed location for Zone 2 energy centre has been given a rough location to the East of Lansdowne Road at its North end. As there is no clear energy centre site this approximate area has been designated in order to address the feasibility of pipework distribution and to measure the pipe distances from source to POC for the costing exercise.

Zone 3: West Croydon Energy Centre

The proposed location for Zone 3 energy centre has been given a rough location in the loading bay area in the lowest level basement at the North end of the Whitgift Centre. As there is no clear energy centre site this approximate area has been designated in order to address the feasibility of pipework distribution and to measure the pipe distances from source to POC for the costing exercise. Also, in order to identify the potential customers in Zone 3 is good to understand the approximate location of the energy source.

Rolls Royce Gas Turbine

The proposed heat recovery boiler and second stack would be located to the south-west of the existing stack. This location has been discussed on site with Rolls Royce and is considered feasible, subject to detailed design development.

