

## **St. Andrew's Park District Heat Network – Energy Centre Overview**

The provision of an Energy Centre within Town Centre West Block 1 forms part of the approved Energy Strategy. The delivery of the SAP DHN was secured under hybrid planning consent ref. 585/APP/2009/2752 (as amended by ref. 585/APP/2015/848). The SAP DHN is operated by Metropolitan, following an agreement signed with Vinci St. Modwen (VSM) in 2017 appointing them as Energy Services Company (ESCO) for the site.

The Energy Strategy and related plant within the Energy Centre to serve the SAP DHN (as designed and selected in line with the hybrid planning consent) comprises the following:

- A gas-fired CHP engine, operating as the lead heat generator.
- Connecting thermal stores, to supplement CHP operation.
- Condensing, high efficiency gas-fired boilers to provide back-up and top-up heat.

These plant selections are in accordance with the details approved under the hybrid and subsequent reserved matters planning consents. They are also a key element of the energy services agreement in place for the site, and the associated economics of the DHN.

The following provides an overview of the timeline associated with the development of the Energy Strategy:

- January 2012 - Hybrid planning consent ref. 585/APP/2009/2752 granted for the redevelopment of St Andrews Park. The approved Energy Strategy established the principle that a CHP-led DHN network would serve the TCE, Dice, Triangle, TCW, LEOM and Anchor Assisted Living phases of development. The S106 and planning conditions attached to the hybrid planning consent required detailed energy information to be submitted.
- December 2012 - Condition 9 attached to hybrid planning consent ref. 585/APP/2009/2752 was discharged. Condition 9 required a Detailed Energy Strategy to be submitted and approved. The Detailed Energy Strategy confirmed that a CHP-led DHN would be provided and that the design of the energy centre would be approved as part of a future reserved matter application.
- March 2015 - Energy strategy developed in accordance with the details approved under Condition 9 and the details approved under the hybrid consent, comprising a CHP-led energy centre, located within the TCW parcel, serving a district heating network.

- Early 2016 - VSM tender for a partner to deliver & operate the site energy infrastructure. Metropolitan are selected as VSM ESCo partner, on the basis of commercial arrangements and customer heat supply tariffs derived for delivery and operation of a CHP-led DH network.
- December 2016 - Reserved matter application submitted pursuant to the hybrid consent for the TCW parcel (ref. 585/APP/2016/4504). This included the details of the Energy Centre.
- 2017 - VSM & Metropolitan compile and agree an Energy Supply Agreement (ESA) for the site, including delivery of the CHP lead Energy Centre.
- December 2017 - ESA between VSM and Metropolitan is signed.
- 2018 – Stage 3 design for the Energy Centre is completed, reflecting the incorporation of CHP plant and detailed within the VSM & Metropolitan ESA and planning consent.
- June 2022 - Stage 4 design completes for the Energy Centre with TCW in accordance with the details approved under TCW reserved matters consent. D&B Contractor appointed for final design and delivery of the Energy Centre. Procurement work commences for items of major Energy Centre plant, including the placing of orders for the CHP unit and Thermal Stores, required to meet project construction programme milestones for install and heat-on.
- August 2022 - Construction of TCW basement and casting of Energy Centre complete.
- September 2022 - Installation of Thermal Store within basement-level / double-height space in Energy Centre.
- October 2022 - Install of final DH branch connections into basement of TCW Block 3.
- January 2023 - Manufacture of CHP engine completes, ready for shipping to UK. Prefabricated EC pipework manufactured and in storage, awaiting delivery to site.
- Future Works - Install of incoming utilities to Energy Centre. Install of CHP and other major energy plant. Heat on, with DHN network being supplied from the Energy Centre within TCW Block 1.

### **Condition 55 – Energy Centre Air Pollution Controls**

Condition 55 attached Hybrid Planning Permission states:

*“Unless otherwise agreed in writing by the Local Planning Authority, prior to commencement of works to create any energy centre or the like, details of the means to control air pollution for the energy centre or the like shall be submitted to and approved in writing by the Local Planning Authority. The details shall include the height and location of any flue(s).*

*The measures shall be provided prior to the occupation of the relevant phase and thereafter be operational and maintained for the lifetime of the development unless consent to any variation is first obtained in writing from the Local Planning Authority.*

*REASON In order to safeguard the amenities of the area, in accordance with Policy OE1 of the Hillingdon Local Plan Saved Policies (November 2012) and London Plan (March 2015) Policy 7.1.”*

The Energy Centre incorporates appropriate design measures to ensure effective control of air pollution. A robust flue system has been provided, with the flue height verified as adequate through detailed dispersion modelling, ensuring emissions are safely dispersed under normal operating conditions. In addition, the flue outlet has been positioned away from windows, doors and air intakes to prevent any risk of localised recirculation or exposure.

The purpose of Condition 55 is to safeguard local amenity by ensuring emissions from the Energy Centre do not give rise to unacceptable air quality impacts. The Dispersion Modelling Assessment prepared by Vital Energi demonstrates that pollutant concentrations at all relevant receptor locations remain well within the applicable Air Quality Objectives, and that the overall impact of emissions from the Energy Centre is not significant. The assessment confirms that the development will not adversely affect air quality or amenity.

Furthermore, as the Energy Centre operator, Metropolitan conduct periodic emissions testing & reporting for all combustion plant in adherence to either regulatory and/or manufacturer requirements, as applicable to the plant’s output capacity and operational regime.

Given the adopted design measures, the modelling results, and the operator’s established monitoring regime, no further means are proposed in relation to air pollution as the Energy Centre is acceptable in air quality terms.