

THE HYDE UPDATED ENERGY STRATEGY NOTE

Background

This note describes the changes made to the energy strategy for the consented development at The Hyde (Application number: 18/0352/FUL) in the London Borough of Barnet.

Planning condition 23 Part A states that:

“Energy Provision for the detailed element of the scheme shall be in accordance with the Revised Energy Statement (Planning Issue 2)”

This energy statement described a strategy which used a heat network supplied by gas boilers. It also included PV panels to be installed on the rooftops of the development. This allowed the development to achieve a **28.4% reduction in CO₂ emissions** over the baseline Part L 2013 target.

Updated strategy

To allow further CO₂ savings to be made, a change to the heating strategy will be used.

The new strategy followed is as below:

- > A heat network with 100% heat demand supplied by air source heat pumps (ASHP);
- > ASHP SCOP of 300%;
- > Distribution heat loss factor of 1.05, matching those used in the consented strategy and in accordance with SAP 2012 defaults.

These details are based on the current design plans which have been optimised to maximise efficiency. This includes using highly insulated distribution pipework to minimise network distribution losses. Well insulated heat interface units (HIUs) will also mean losses will be kept low.

Due to a significant area of the roof being required for the heat pump units, PV panels will no longer be installed. This is deemed a suitable compromise as heat pumps are a highly efficient and low carbon solution.

Other parts of the strategy, such as the fabric, remain as the consented strategy.

- > External wall u-value: 0.15 W/m²K;
- > Roof u-value: 0.12 W/m²K;
- > Ground and exposed floors u-value: 0.20 W/m²K;

- > Glazing u-value: 1.3 W/m²K;
- > Glazing g-value/Lt: 0.5/0.75;
- > Mechanical ventilation with heat recovery (MVHR).

This will lead to a **77.6% reduction in CO₂ emissions** over the baseline Part L 2013 target as shown in Table 1. The development has been registered and construction will commence in time to fall within the Part L 2013 regulations.

It is also important to note that the latest SAP 10.2 carbon factors were used to calculate the regulated CO₂ emissions in the table below.

Table 1: Regulated Carbon Dioxide Emissions for The Hyde based on the updated energy strategy.

Stage	Carbon Dioxide Emissions (tonnes CO₂ per Annum)
Part L target	261.10
After efficiency and heating measures	58.53
Total Emissions Reduction	202.57
Percentage Reduction	77.6%