

5 Hermit Place, London

PDA Response to Planning Officer's Comments

February 2023

Comments by Nora-Andreea Constantinescu - Senior Planner (London Borough Of Camden)

1. We know that the proposed exhaust air heat pump works really well with highly insulated properties, passivhaus type. As this is not a passivhaus, could your engineers confirm that from their experience they are confident this would be sufficient to meet the space heating and hot water demands as required by this new building?

PDA Response by Arshpreet Chugh

1. As the level of insulation being proposed for new fabric elements is better than the notional building specifications in Approved Document L Volume 1, 2021 edition. The heat losses of the dwelling will be significantly lower than a standard new build property of similar size. Based on the proposed specification of fabric, the heat losses for the dwelling are calculated to be below 2.5kW. The proposed exhaust air heat pump has a rated heat output of 5.0kW and an integral immersion heater output of up to 6.5kW that can be used to assist the heat pump or used in an emergency when heat pump is not operational. Using the water efficiency calculator for new dwellings, the predicted water consumption for this dwelling is 91 litres/person/day resulting in a total water consumption of 182 litres per day (1 bedroom, 2 person dwelling) with predicted hot water consumption of 110 litres per day (60% of total water consumption). The proposed exhaust air heat pump comprises of 180 litres of hot water storage which gets heated overnight ready for the peak hot water demand period in the morning. The exhaust air heat pump is capable of heating 180 litres of stored water from 10°C to 60°C within 96 minutes.