



BICESTER GREGGS DRIVE THRU – COMMENTARY ON ENERGY POLICY

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ISSUE 01 – 04.11.21

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COMMENTARY ON ENERGY POLICY (1)

This document is provided to provide the schemes response to the following Policy Documents :-

Policy ESD1: Mitigating and Adapting to Climate Change

Policy ESD2: Energy Hierarchy and Allowable Solutions

To address the above points we will address the 3 hierarchies of Energy :-

Be Lean (Use Less Energy by making the building efficient)

Be Clean (Supply Energy efficiently)

Be Green (Use Renewable Energy)

BE LEAN

The building is designed to use less energy and manage demand during operation through fabric and servicing improvements and the incorporation of flexibility measures. This also includes using highly efficient LED lighting and high efficiency heat recovery for the ventilation system.

U VALUES / FABRIC

The current building is proposed to have good fabric u values that comply with the minimum standards as required by Building Regulations and also better in certain elements as defined below :-

Walls	0.35 W/m2.k	(Min 0.35 W/m2.k)
Roofs	0.17 W/m2.k	(Min 0.25 W/m2.k)
Floors	0.25 W/m2.k	(Min 0.25 W/m2.k)
Doors	2.2 W/m2.k	(Min 2.20 W/m2.k)
Windows	2.20 W/m2.k	(Min 02.20 W/m2.k)

The Air Permeability level will better the minimum standards as required by Building Regulations of 10m3/hr.m2

Proposed Air Permeability 5.00m3/hr.m2

VENTILATION

The current proposal is to have ventilation to all areas provided by MVHR ventilation (Mechanical Ventilation with Heat Recovery) and although not a complex system will provide the correct ventilation measures as required for the end user

LIGHTING

All lighting used internally and externally within the proposed coffee shop will be LED high efficiency luminaires as laid down within the policy guidelines.

In summary the current proposal complies with all points laid down by Planning Policy ESD 1 & ESD 2 in relation to BE LEAN

BE CLEAN

To comply with the BE Clean approach we would need one of the following options available

1. Connection to existing heating and cooling networks
2. Site wide CHP network
3. Communal heating and cooling.

None of the above are available on the site as first, the nearby care home is a totally independent operation, with different ownership and secondly, we are only otherwise concerned with a single coffee shop

In summary the current proposal cannot comply with the points laid down by Planning Policy ESD 1 & ESD 2 in relation to BE CLEAN



COMMENTARY ON ENERGY POLICY (2)

BE GREEN

The building design has maximized opportunities for green energy usage through low and zero carbon technologies along with electrification of building systems energy sources. This is reflected in the HVAC strategy which is based on using high COP/EER heat pumps (low carbon technology) for heating and cooling for major occupied spaces, plus air source heat pumps for water heating. Such design adds to the building resilience with the ability to uplift the building performance throughout its lifetime and provide a true capability for the project for climate change adaption.

HEAT PUMPS

The heating and cooling to the development will be provided by High COP Air Source Heat Pumps (ASHP) these will provide high efficiency heating and cooling to all areas to ensure the correct design operating conditions for the end user. In addition zone controls will be provided to ensure accurate and economical environmental control.

PHOTOVOLTAIC CELLS

It is proposed to install around 100m² of PV on the roof of the proposed development using 345W PV panels mounted at an angle at roof level facing South. The PV panels will provide around 18KW of electricity generated at maximum output generating over 16000KWH of GREEN electricity each year saving over £2,000 per annum in elec usage costs.

OTHER AREAS

We can confirm that NO GAS will be installed to the development and that all equipment will be electrically fed / operated ie

- Catering Equipment & Ovens
- Water Heating

In summary the current proposal comply with all points laid down by Planning Policy ESD 1 & ESD 2 in relation to BE GREEN



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