121 FINCHLEY ROAD THE GYM GROUP SWISS COTTAGE ENERGY STATEMENT





Issue History

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1.0 Introduction

This Energy Strategy aims to provide evidence of the following, in order to demonstrate compliance of the development with the local planning authority for the fitout gym at the existing unit at 121 Finchley Road.

2.0 Proposed Energy Strategy

The Gym Group are committed to reducing our carbon emissions, and we recognise the importance of the Paris Agreement to limit global warming to 1.5°C. Our sustainability strategy acknowledges this and sets out our responsibility to the environment. Our road to net zero Our stated commitment to net zero was accepted by Science Based Targets initiative ('SBTi') and we have now made our full submission; this defines our pathway to net zero in compliance with the latest science based standards and guidelines.

We are committed to achieving our near term target of 50% reduction in Scope 1 and 2 emissions by 2030 and decarbonising these emissions by 2035. In addition, we have committed to a science based target to achieve net zero by 2045.

We are so keen that we are also offsetting our current carbon emissions by investing in high-quality offsetting projects. And these aren't any old projects, they are all carefully selected and certified by internationally recognised bodies. Because of this, we are super proud to have become **the UK's first carbon neutral gym chain**.

The enable us to achieve our carbon emissions reductions we will be installing and upgrading the following services to enable the reduction of energy and carbon emissions.

Water

The gym group use ultra low flow rate showers using only 4.51/min of water by utilising aerated shower heads to make the shower flow rates feel much higher for their customers. The showers are controlled via push bush timed controls to help limit water usage.

WC's cistern are 4/2.6l dual flush units with water recovery systems to collect the condensate water form the air conditioning systems to fill the WC cisterns to help reduce water usage.

All wash hand basins are fitting with flow limiting taps with a flow rate of 3.2 l/min and are push button controlled to limit water usage.

Hot Water Generation

The hot water for the unit is to be generated via an Air Source Heat Pump (ASHP) specifically designed for commercial sanitary hot water application which provides a low

carbon solution. The ASHP utilises the natural and stable refrigerant CO2 (R744), the environmentally clean solution enables compliance. Compounded by the increasing decarbonisation of the electrical grid and the UK's commitment to Net Zero 2050, the QAHV provides a high efficiency, low carbon hot water solution.

The hot water ASHP has a high COP energy efficiency of 388% which enables the hot water for The Gym Group to be provided via a low energy and low carbon solution.



Fig1 - Hot Water ASHP

Ventilation

The ventilation system to be installed will be a packaged air handling unit with high efficiency heat recovery thermal wheel system which will recovery up to 88% of the extract ventilation energy help minimising energy usage to temper external fresh air. The ventilation system includes carbon dioxide monitoring to help reduce ventilation rates and energy usage during lower occupancy periods.



Fig 2 – Ventilation AHU

Lighting

New high efficiency LED lighting shall be installed throughout the fitout. All lighting is ultra efficient providing up to 150 Lumens per circuit Watt.

All lighting shall include integral controls to allow dimming controls and occupancy sensing to dim and turn off lighting in areas not in use or of low occupancy.





Fig 3 – LED Lighting

Heat Pump Heating and Cooling

The building will be installed with a new high efficiency VRF heat pump system to provide the buildings heating and cooling requirements. The systems has a high COP energy efficiency is up to 427% meaning the heating and cooling for the building is provided via a highly efficient low energy and low carbon solution.

The heat pump controls include occupancy sensors for set back temperature controls and central monitoring control to ensure all systems are operating efficiency and within set temperature and energy limits to help reduce energy consumption.





Fig 4 – VRF Heat Pump System

3.0 Conclusions

Overall The Gym Group are fully committed to reducing their energy usage and carbon emissions. The building will be fully electrical and all the electricity for the building will be provided from renewable energy sources.

The new fitout for the building will use low carbon and low energy technologies throughout and will use the latest and most efficient technologies and controls to ensure the buildings energy and carbon is as low as possible for the buildings type and usage.