MANCHESTER COLLEGE OPENSHAW CAMPUS

NEW ENGINEERING BLOCK

Sustainability Statement

A requirement to provide an energy efficient and sustainable development exists through the planning policies of the local authority.

A reduction in carbon emissions beyond current building regulations Part L2a is required together with a requirement for energy generated to be provided by LZC technologies.

The aspiration to achieve Net Zero has been at the forefront of the design development process.

A fabric first approach has been adopted through thermally efficient materials in the building design. All fabric elements exceed building regulations stated values.

Energy efficient systems have been selected to reduce energy requirements such as heat pumps to classrooms, LED lighting throughout, PIR controls & ventilation with heat recovery to all occupied spaces.

A roof mounted PV array generating a minimum of 26kwh power of renewable energy is proposed.

The design team have worked closely with Manchester College to minimise energy usage, provide energy efficient systems and introduce LZC technology where appropriate.

The SBEM modelling for the building indicates a circa **10%** reduction in CO2 emissions over current building regulations and, significantly, energy generation from LZC technologies exceeds **20-30%** of consumption.