

Energy Statement

PROJECT NAME :	The Orchard – Nursery School, Cowfold Road, Horsham
PROJECT NUMBER :	P4269
SERVICES :	Mechanical, Electrical and Energy
REVIEWED BY :	Mark Bryan
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Introduction

This document is the Energy Statement for the proposed application for change of use of the first floor from use as a self-contained (owners) flat to children’s nursery (use Class E). The scheme is located at The Orchard, Cowfold Road, Horsham, Sussex.

Methodology

This Energy Statement sets out the proposals to address Horsham’s Strategic Policy 7: Appropriate Energy Use, which follows the widely accepted Energy Hierarchy design:

Strategic Policy 7: Appropriate Energy Use

Energy Hierarchy

1. Development will be supported provided that it contributes to clean, efficient energy in Horsham based on the following cascade:
 - a) **Be Lean** – use less energy – for example, by minimising energy demand through energy efficiency measures such as fabric performance and passive design;
 - b) **Be Clean** – supply energy efficiently and exploit local energy resources such as secondary heat and district energy networks where available. Preference must be given to technologies with greater efficiencies and fuels with lower carbon emissions to achieve the highest total lifecycle carbon emission savings, in accordance with Part 2 of this policy;
 - c) **Be Green** – maximise the use of renewable energy sources.
 - d) **Be Seen** – monitor, verify and report on energy performance.

The proposed development shall consider the following energy design considerations and shall be compliant with Building Regulations Part L2. Part L of the Building Regulations provides guidance on how all types of new construction, whether new build or refurbishment should comply with the design and energy performance standards as set out within the guidance. The guidance includes information about limiting heat gains and losses, air permeability, insulation regulations, heat production systems, lighting and domestic hot water. New build developments may have to undertake a carbon dioxide performance calculation dependant upon the on size (m2), whereby a Target Emissions Rate (TER) is set within SAP/SBEM calculation and Building Emissions Rate (BER) is then calculated to be equal or better than the TER to demonstrate compliance.

Design and Construction Approach

To adhere to the Horsham Energy Hierarchy the following shall be considered with the design proposals:

Be Lean

Use less energy by minimising energy demand through energy efficiency measures such as fabric performance and passive design.

The proposals shall consider the following:

- As the building is currently existing with no external new build elements proposed, the scheme shall review the heat losses associated with the existing property. In line with Part L2, if the U-value of the current building are outside of the external limitations as set out in Table 4.2 – Limiting U-values for existing elements then insulation enhancements shall be considered to reduce heat losses within the proposals. The elements that shall be considered are roof insulation upgrades, wall insulation upgrades and window enhancements. Draught proofing measures, including door and window seals shall be considered as part of the build to improve the air tightness of the development.

Be Clean

Energy efficient supply of the building services technologies will be considered with the refurbishment of the scheme. This is also covered within Part L2 of the Building Regulations within section 5 of the guidance. Should the lead heat source be deemed inefficient by the regulated standards, as noted in Table 6.2 of Part L2 the following design measures shall be considered:

- A replacement heat source to have minimum seasonal efficiency in compliance with Table 6.2 of Part L2 Building Regulations.
- Energy efficient heat distribution and appropriate control measures. Once heat loss improvements have been considered within the 'Be Lean' stages, efficient distribution of heat is to be considered. Low surface temperatures 'protected' radiators or underfloor heating shall be explored with appropriate controls and timers shall be adopted in the design to ensure energy efficient control of heat.
- Metering, sub-meters for space heating, domestic hot water and electricity shall be installed in line with the metering requirements of Part L2.
- Commissioning of all energy related systems shall be overseen by professionally registered engineers and inline with Part L2.

Be Green

Subject to viability renewable energy sources will be considered as part of the design, including but not limited to:

- Heat Pump technology
- Solar Photovoltaics
- Solar Hot Water

As this is an existing building, renewable energy technology would have limited benefits, however the above technologies could have an energy impact pending a simple payback calculation as required in Table D1 of Part L2 (less than 15 years payback).

Be Seen

The metering of the proposed scheme shall be inline with Part L2 Building Regulations and therefore metering shall be recordable. The existing school shall be responsible for the energy billing arrangements and will produce a Display Energy Certificate (DEC) to demonstrate how energy efficient the building is in operation. These are required to be published for public records.

Summary

The proposed development will follow the Horsham Planning Policy – Energy Hierarchy as described in Strategic Policy 7.

The energy hierarchy of design shall be considered as below:

- Enhancing existing thermal elements where outside of the Building Regulations Part L2.
- Draught proofing measures to reduce heat losses throughout the design.
- Consideration of Building Services efficiency upgrades subject to operational efficiency of current system.
- Energy efficient distribution of heat via underfloor heating or low heat loss surface radiators
- Appropriate energy control systems, including timers, programmers and thermostats within the Building.
- Consideration of renewable energy technologies subject to simple payback calculations.
- Commitment to record energy data through billing and an annual Display Energy Certificate (DEC).

Issued to:

Name	Company	Date	Action
Sadie Bossom	Substantia	17/10/2025	For Issue