

ENERGY STATEMENT

for a proposed development of 10 dwellings on Cross Lane, Sheffield, S36

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1. General

This energy statement has been prepared by Energytest Ltd in support of a planning application for a proposed development of 10 dwellings on Cross Lane, Hoylandswaine, Sheffield, S36. The statement provides an initial assessment of the energy requirements of Plot 1 using approved standard calculation methods, and the contribution PV panels may make.

2. Planning Condition

Policy CSP5 of the Barnsley Council Core Strategy asks for new build developments of 10 or more dwellings to “incorporate decentralised, renewable or low carbon energy sources and other appropriate design measures sufficient to reduce the developments carbon dioxide emissions by at least 20 %”.

3. Development

The proposed development comprises 10 new detached 2 storey dwellings consisting of various house types.

4. Baseline Energy Demand

The baseline energy demand for this development has been calculated as per the minimum requirements of Approved Document L1A of the 2013 Building Regulations, with primary heating and hot water to be provided via gas-fired condensing boilers (minimum efficiency 89%). Plot 7 (House type G) has been chosen as it has the least suitable roofs for PV.

5. Low or zero carbon technology

The development at Cross Lane is proposing to incorporate PV panels on each dwelling.

6. Results

Calculated total energy demand and total CO₂ emissions:

		Baseline		With Low or zero carbon technology		Energy Demand and CO ₂ reductions		Percentage reductions	
Dwelling	Low or zero carbon technology	Total Energy Demand (kWh/yr)	Associated Total CO ₂ (kgCO ₂ /yr)	Total Energy Demand (kWh/yr)	Associated Total CO ₂ (kgCO ₂ /yr)	Total Energy Demand (kWh/yr)	Associated Total CO ₂ (kgCO ₂ /yr)	% Energy Reduction	% CO ₂ displaced by renewable technology
Plot 1	1.8 kWp PV system.	13252	3079	12028	2418	1224	661	9.24%	21.47%

The inclusion of 1.8 kWp of PV on Plot 7 results in a 9.24% reduction in Energy Usage and a 21.47% reduction in CO₂ emissions.

Since Plot 7 has the least suitable roof for PV, therefore it can be assumed that the other plots may exceed the 21.47% reduction achieved.