



ENERGY STATEMENT

**for a proposed development of 13 dwellings on
Wellthorne Lane, Ingbirchworth, 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 13 dwellings on Wellthorne Lane, Ingbirchworth, 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 15 %".

3. Development

The proposed development comprises 13 new detached 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 Building Regulations, with primary heating and hot water to be provided via gas-fired condensing boilers (minimum efficiency 89%). Plot 1 has been chosen as it has the smallest roof area available for PV.

5. Low or zero carbon technology

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

6. Results

Calculated total energy demand and total CO₂ emissions:

Dwelling	Low or zero carbon technology	Baseline		With Low or zero carbon technology		Energy Demand and CO ₂ reductions		Percentage reductions	
		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)	% Primary Energy Reduction	% CO ₂ displaced by renewable technology
Plot 1	0.75 kWp PV system.	8,979	1,979	8,335	1,638	644	341	7.17%	17.23%

The inclusion of 0.75 kWp of PV on Plot 1 results in a 7.17% reduction in Energy Usage and a 17.23% reduction in CO₂ emissions.

Since Plot 1 has the smallest available area for PV, therefore it can be assumed that the other plots may exceed the 17.23% reduction achieved.

