

Energy Statement

The design reduces excess losses from glazing by orienting the dwellings East – West, this reduces energy (heat) loss through North glazing and keeps the cooling load to a minimum by preventing unwanted solar gains.

Timber Frame Construction reduces the Thermal Mass (lag) and increases the heating responsiveness.

An Air Source Heat Pump (ASHP) has been chosen to deliver higher energy efficiencies, typically 325% efficient (compared with a gas boiler at 92%). Our energy comparison below uses an ASHP efficiency of 170% as a 'worst case' in accordance with BRE guidelines.

Plot	Total Energy with gas boiler (kWh)	Total Energy with ASHP (kWh)	Saving
1	12506.6441	5897.3514	52.85%
2	11148.1824	5863.1484	47.41%
3	11034.0336	6042.4807	45.24%