



Energy Statement
Goldthorpe Primary School
PA935

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1.0 **Energy Statement**

The scheme will be designed as a building limiting its impact on the local environment whilst meeting wider national targets for energy consumption and CO₂ emission reduction.

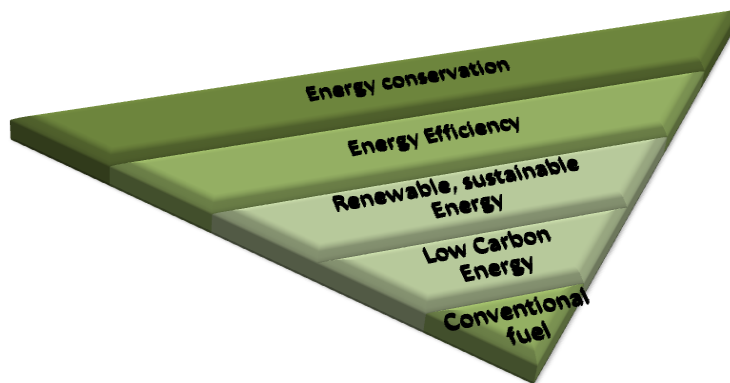
Goldthorpe School will be built under Part L2A 2013, which improves on the regulations by 15% this is subject to planning.

In order to meet the buildings' Target Emission Rate (TER) we propose to use the energy hierarchy as basis for the design.

Energy Hierarchy

The services for this project are selected with the following energy hierarchy;

1. Energy Conservation (do not use as much energy)
2. Energy Efficiency (find more efficient ways of supplying/using energy)
3. Renewable, Sustainable Energy Supplies (least environmental impact)
4. Other Low-Carbon Energy Supplies (other GHG-reducing supply sources)
5. Conventional Fuel Supplies (the way we currently do it)



Priority 1 – Energy Conservation

Examples of this would be; using all forms of motorised transport less, insulating buildings better, passive solar building design, other low-carbon buildings, turning thermostats down, etc.

Goldthorpe School will be provided with good performance building fabric with low U and G values. Natural light will be introduced where ever possible and the use of high efficiency lighting and daylight controls will maximise this benefit.

Priority 2 – Energy Efficiency

At Goldthorpe School we propose to maximise energy efficiency using the latest technologies variable speed drives, low energy lighting and intelligent building controls will enhance the buildings efficiency.

Priority 3 – Renewable and Sustainable Energy

A number of Low/Zero Carbon (LZC) technologies will be provided at this school however the extent of these technologies will be confirmed during the detailed design phase however we believe technologies offsetting grid supplied electricity will be of significant benefit. Air source heat pumps, solar hot water, photovoltaics, wind turbines, combined heat and power and bio fuels will all be considered.

Priority 4 – Low Carbon Energy

Low-Carbon Energy Supplies; another supply-side feature which includes other energy-producing technologies which achieve reductions in Greenhouse Gas (GHG) emissions but which do not meet the classic definition of 'sustainable' resources. This can include power-generation from 'clean' coal, for instance, or perhaps Nuclear (although this has other environmental issues which have to be addressed), vehicle fuels including liquefied petroleum gas (LPG) or compressed natural gas (CNG).