

Appendix 3b. Biomass Energy Comparison

Gas, Electrical and Biomass heating solutions for Headstone Manor were investigated, the costs of each option are shown in Appendix 3b. The Biomass solution was also attractive in relation to the Climate Change Strategy and the target of 4% year on year reduction in CO₂. All calculations shown are based on an annual consumption of 750,000 kWh minimum usage.

Gas boiler neighbourhood heating system

- Capital cost: £101,250
- Revenue cost of heating: £60,000 (8p / kWh)
- CO₂ emissions: 211 g/kWh
- This option enables all buildings on site to be heated from the same energy efficient system.

Electrical heating replaced in Great Barn

- Capital cost: £42,000
- Revenue cost of heating: £90,000 p.a. (12p/kWh)
- CO₂ emissions: 433 g/kWh
- This option would only provide heating for the Great Barn

Recommended

Biomass Boiler neighbourhood heating system

- Capital cost: **£0** (the £97,511 cost of the boiler is covered by the company to whom the lease is granted)
- Revenue cost of heating: **£ 32,925 p.a. (0.0439p / kWh)**
- CO₂ emissions: **52 g/kWh**
- This option enables all buildings on site to be heated from the same energy efficient system. The energy company will recover the capital cost from the Government's RHI grant scheme. The Council will be liable to purchase fuel solely from the energy company.