



LoadTracker combined heat and power (CHP)

The Project

A school campus expansion project, initially proposed to provide additional space so that both upper and low school pupils could be accommodated at the same campus. The scope of the project also included the provision of further facilities for students and the local community.

Summary of Site Demand

Annual electricity demand

Electricity price

Annual heat and DHW demand

Gas price

64,518 kWh
7.7 p/kWh
195,851 kWh
3.537 p/kWh

The Challenge

To provide a means of energy generation, for project compliance with building regulations, that would keep project costs to a minimum and enable the capital outlay to be recouped quickly.

The Solution

Supplied and installed one 15kWe/30kWth LoadTracker CHP units able to supplying 73% of site heating and hot water demand and 61% of electrical demand.

Features

- Modular Unit Design for flexibility of install.
- LoadTracker automatically modulates electrical output, which minimizes unnecessary grid electricity consumption.
- Noise levels of 49db comparable to low level office noise.
- Long service intervals (8,000 hours or 2 years).

Benefits

- Carbon Footprint Savings
- Cost Savings

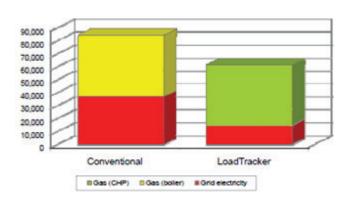


Carbon Footprint Savings

22 tonnes of CO₂ emissions could be reduced by installing a CHP system relative to a conventional mains supply/gas boiler system.

CO ₂ (conv)	84,140 kg CO ₂ pa
CO ₂ (CHP)	61,384 kg CO ₂ pa
Net reduction	22,755 kg CO ₂ pa

This is an equivalent **27%** reduction of CO₂ emissions.



Cost Savings

The use of LoadTracker CHP would result in annual savings of £3,094 relative to a conventional mains supply/boiler system.

	Conv.	СНР
Electricity	£4,968	£1,908
Gas (Boiler)	£8,659	£129
Gas (CHP)	0	£8,496
Total	£13,627	£10,533

This is equivalent to saving **22%** on energy bills

