



FREE

WASTE HEAT ENERGY SURVEY

INDUSTRIAL SITES LOSE UP TO 30% OF THEIR ENERGY IN THE FORM OF WASTE HEAT FROM THEIR PROCESSES.

The challenge is to know how much of this waste heat energy can be recovered and converted to useful energy to improve the efficiency of the site. Typical industrial applications producing large amounts of waste heat include:

- **GAS ENGINES**
- **BOILERS**
- **FURNACES**
- **INCINERATORS**
- **KILNS & OVENS**

Heatcatcher offers a FREE independent Waste Heat Energy survey for industrial applications, to measure and forecast the amount of energy that can be recovered, quantifying how much can be converted into low carbon electrical energy against the costs of turnkey project implementation of the waste heat to energy technology.

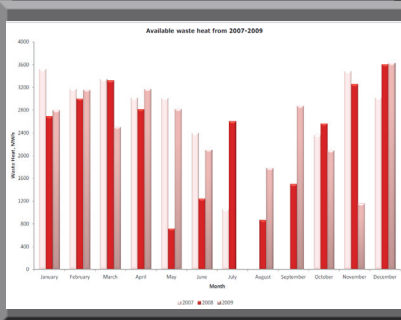
Converting waste heat into low carbon electrical energy can offer paybacks between 3 to 5 years and protect against rising energy and carbon taxation costs, whilst assisting in meeting corporate social responsibility objectives.

CASE STUDY

Industrial Process
Client
Measured
Quantified
Forecasted

Waste Heat Steam Boiler Exhaust Flue
Cambridge University Hospitals NHS Foundation Trust
4.4MW of Waste Heat available for recovery
250kWe of low carbon electrical generating capacity
1,260 MWh of electricity generation saving 685 tonnes of CO₂ per year*
*(Based on 6500 operating hours)

**ANNUAL FORECAST
OF ELECTRICAL
GENERATION
AVAILABLE**



BRIEF

Measure the flow rate and temperatures exhausted from the No.3 Steam Boiler serving Addenbrooke's Hospital in Cambridge, to determine and forecast the amount of energy available for conversion to low carbon electricity.

RECOMMENDATION

The survey report determined the average mass flow rate at 19.85 kg/s and by analysing the last three years of metered data and operating hours determined at total of 28,233 MWh per annum of thermal energy was being exhausted. The report recommended that by fitting a heat exchanger into the exhaust flue, enough energy could be recovered to run 2 x 125kW gross electrical output Waste Heat Generators could be installed incorporating the latest in organic rankine cycle technology.

OPPORTUNITY

By installing the Waste Heat Generators the hospital would benefit from 1,260 MWh of electricity being generated for use at the hospital saving 685 tonnes of associated CO₂ and avoiding purchasing over £100,000 of electricity from their Local Grid Energy Supplier.

**For your FREE waste heat to energy
survey by Heatcatcher Ltd.**

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