FLU-ACE®

HOSPITAL

BENEFITS

- £500,000 in annual savings
- Energy savings exceeded 1.5 MW
- Payback in less than 3 years in reduced gas usage
- CO_2 emission reduction of 7 tonnes/day
- Waste gases cooled from 266°C to 21°C

Boiler Plant Condensing Heat Recovery System

The hospital, one of the UK's leading teaching hospitals and a leading healthcare provider, is making significant energy savings in a state-of-the-art heat recovery system. Designed, manufactured, installed and commissioned by Thermal Energy International, the unique system takes waste heat gases from the existing steam boiler house, which includes a gas turbine heat and power unit, and utilises the waste heat to heat water for hospital heating, domestic water heating and boiler feed water heating.

The condensing heat recovery system has reduced the boiler exhaust temperature in the flue from 266°C to 21°C and has resulted in energy savings exceeding 1.5 MW, amounting to savings of around £500,000 per annum. The hospital has also reduced its carbon dioxide emissions by a substantial 7 tonnes per day.

With funding through a Salix interest free loan and payments made through energy savings, The hospital achieved a payback on the system in less than three years.

"It sounds so simple. We use the waste heat from our gas turbine and steam boilers to heat hot water which we use in the hospital. The system in its first day recovered over 1.5 MW of energy and over 7 tonnes of carbon dioxide. We look forward to expanding the system to our other heat loads and making an even bigger contribution to reducing the hospital's Carbon Footprint."'

- Energy Manager