

## Guy's & St Thomas' Hospital Trust

### The Brief

Guy's and St Thomas' NHS Foundation Hospital Trust asked the Energy Consultancy division of Green Compliance to help meet its air conditioning obligations under the European Performance of Buildings Directive (EPBD).

### The Project

Under the Directive, all cooling systems with a cooling capacity of 250kW or more should have had an initial inspection before January 2009 and been regularly re-inspected since, up to four times a year dependant on size.

The system comprised of a variety of cooling and ventilation systems serving 30+ buildings, on two sites, and included over 200 air handling units, 400 packaged units and two BMS systems. The cooling equipment ranged from older R22 plant to more modern 407C centrifugal and absorption chillers.

Whilst the previous approach to repairs and maintenance had kept these in working order, this was the first time that the equipment had been subjected to a comprehensive inspection. The resulting detailed recommendation report revealed scope for major efficiency savings, equipment upgrades and recommended remedial work.

### The Results

As well as ensuring full EPBD compliance, potential **savings worth up to £3m per year** were identified.

Our project provided:

- An independent, comprehensive, methodical system appraisal
- Identification of potential upgrades and improvements to the BMS
- Development of a framework for maintenance and inspection to improve reliability and efficiency

Identified improvements to power efficiencies included:

- Upgrades to chiller units
- Improved fan, motor and pulley systems
- Installation of inverters to optimise air volume control
- Recommendations for filtration efficiency and replacement regime
- Identification of alternative cooling solutions for non-critical areas
- Optimisation of BMS to give enhanced targeting, monitoring and alarms

Green Compliance offers a full range of low carbon and compliance consultancy services, including a unique web-based energy management and control system.

For more information or to talk to the team about producing a proposal for you, call us on

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Guy's and St Thomas' **NHS**  
NHS Foundation Trust

"This was a major project to undertake, requiring experts in their field and a sympathetic approach to ensure minimal disruption to the operation of the hospital. I'm pleased to be able to say that the Energy Consultants from Green Compliance more than met the challenge.

We hope to be able to work with them when implementing the programme of energy and cost saving projects."

Joe Grice  
Energy Manager, Guy's & St Thomas' Hospital Trust

