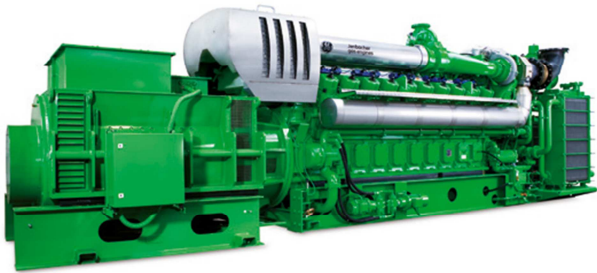


## St Thomas's Hospital CHP Plant



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**Client**

Guys & St Thomas's NHS Trust

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**Capacity**

3.0MW<sub>e</sub>

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**Location**

London, England

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**Operational**

2009

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**Manufacturer**

GE Jenbacher

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**Installation by**

Clarke Energy

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**Type**

1 x JMS620 GS-NL

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**Primary Fuel**

Natural gas

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Since 2007 the UK National Health Service (NHS) has strived to reduce its carbon footprint of 18 million tonnes of CO<sub>2</sub> per year – 3.2 per cent of all carbon emissions in England. Each organisation within the NHS has set its own targets and put a plan in place to achieve a total drop of 10% by 2011.

Guy's and St Thomas' NHS Trust has made great strides towards reducing its carbon footprint and is well on its way to exceeding the targets set by the Department of Health and the NHS.

The biggest step for the Trust carbon reduction plan was the installation of Combined Heat and Power (CHP) units at both sites, which aim to save an additional £1.7 million in energy costs and reduce carbon emissions by 11,300 tonnes. Clarke Energy working with NIFES consulting installed a Jenbacher JMS620 gas engine with a Cochran waste heat steam boiler to work alongside the 4 existing boilers at St Thomas' hospital. The hot water circuit from the engine supplies heated water, via a plate heat exchanger, for use across the hospital, whilst the exhaust gases are utilised via a catalytic converter to heat the newly installed lead boiler.

