



CHP case study

Lister Hospital

The Site:

480-bed district general hospital in Stevenage

Part of the East and North Herts NHS Trust

Provides hospital services to people across Hertfordshire and South Bedfordshire

Underwent £150 million investment programme (including this CHP project)

Location:

Stevenage

Date Operational:

October 2012

CHP Installed Capacity:

1.4 MWe

Investment Cost:

£2.7 million

Annual Cost Saving:

£0.65 million

Project Objective:

Improve the energy centre at Lister hospital through installation of a CHP plant to increase energy efficiency and reduce energy costs.

The Need:

- Hospital patient care is sensitive to the stability of energy supplies
- Site is full of energy intensive facilities
- Energy was provided solely by the National Grid
- Significant electricity costs
- Carbon emissions targets to be met

Implemented Solution:

- 1.4 MWe CHP plant and three new boilers delivering heating, hot water and electricity to the hospital
- One of the new boilers is linked to the CHP system as a waste heat/fired boiler
- New waste heat pipework
- Steam calorifiers replaced with new plate heat exchangers

The Benefits:

- Annual Cost Savings: £0.65 million
- The Trust's annual carbon emissions reduced by 20% (4,040 tonnes)
- Carbon emissions reduction target was met 3 years early
- Hospital now pays less under the carbon tax
- £1.3 million backlog for heating and hot water system repairs was cleared

