

Generating huge savings for the NHS

We're helping Birmingham Heartlands Hospital cut their energy costs by over \$600,000, with a smarter, more efficient system.



They were looking to reduce CO₂ and boost patient care

Birmingham Heartlands Hospital was tasked with reducing its carbon emissions. At the heart of this was finding a viable replacement for their ageing coal-fired boilers. These had served the Trust well for many years, but they simply couldn't perform to the standard of a modern generation system.

Creating a healthy alternative to deliver long-term results

Our solution provided is a new purpose-built Energy Centre, housing a highly efficient ENER-G Combined Heat and Power System (CHP) system, plus other technology including steam-raising boilers and an absorption cooling system.

The trigeneration system works by recovering the majority of the heat created in the generation process to provide:

- Electricity, steam or hot water for winter heating
- Chilled water for use in the air conditioning systems during the summer

Connecting our CHP unit to the hospital's main heating system meant we could minimize the use of the existing electricity-powered chillers during the summer. The spare cooling capacity can also be used to provide air conditioning to new areas of the hospital.

As well as the CHP work, we upgraded the hospital lighting with 1,800 high efficiency, low energy fittings. We financed the £3.8m (\$5.2m) program around the principles of a Public Private Partnership contract. This included a £311k (\$425k) grant from the Carbon Trust under the Government's.

The results

The ENER-G CHP system enables the hospital to generate its own electricity in a purpose-designed Energy Centre, and is cutting CO₂ emissions by 5,600 tonnes per year – the equivalent of a forest of 560,000 trees. With performance guarantees for 15 years.



of CO₂ cut a year



annual energy savings



CHP performance levels

“

We were attracted to this new system as not only will it save money and conserve resources, it also complies with government targets to cut down carbon emissions and damaging greenhouse gases.”

Geoff Fox

Facilities Manager of Estates Heart of England, NHS Foundation Trust

Why choose ENER-G CHP?

- Avoids Climate Change Levy
- Primary energy savings deliver lower energy bills
- Higher efficiency offers reduced greenhouse gas emissions, offsetting the impact of the Carbon Reduction Commitment
- Greater security of supply and plentiful hot water
- Flexible procurement options
- Zero CAPEX required
- Possible grant funding & VAT savings