



E.ON guarantees cost savings of almost £3m a year for QMC through an Energy Performance Contract (EPC)



The background

E.ON and Nottingham University Hospitals Trust (NUH) are working together on a 15-year agreement to upgrade and manage the Queen's Medical Centre's (QMC) on-site power plant, and introduce a range of energy efficiency measures that will guarantee dramatic reductions in energy use.

E.ON, together with the hospital's support services and construction partner, Interserve, will upgrade the hospital's combined heat and power plant – continuing a 15 year relationship – as well as installing a range of other energy saving measures which will further reduce energy consumption on the site.

The improvements, tendered through the NHS SBS Carbon and Energy Fund (CEF) procurement framework, are expected to deliver carbon reduction of 16,000 tonnes and cost savings of close to £3m a year based on current pricing levels.

The benefits

- Guaranteed cost savings of close to £3m a year or 42% on the annual energy consumption
- Reduction in carbon emissions of 16,000 tonnes a year or 38%
- Carbon Reduction Commitment (CRC) liability reduced by more than £250,000 per annum
- Compliance with new EU environmental regulations and progress towards nationwide NHS targets to reduce carbon emissions by 80% by 2050
- Improved comfort conditions for patients, staff and visitors
- Lower maintenance costs for The Trust

“At NUH we are committed to doing all we can to save energy and reduce our carbon emissions. We are delighted to be working with E.ON and Interserve to do what we can to reduce energy costs and emissions and look at more innovative ways of reducing energy use.”

Andrew Camina
Assistant Head of Estates
Nottingham University
Hospitals Trust (NUH)

“We have enjoyed a strong working relationship with NUH for nearly two decades and this new agreement is a much welcomed vote of confidence in our abilities to work with NHS Trust management and to help them meet their business and financial objectives.”

Paul Baan
Head of Energy Efficiency
E.ON Connecting
Energies

Case study



The project

E.ON UK CHP has owned and operated the combined heat and power system at QMC for more than 15 years. The existing 4.9MW gas turbine which currently provides heating, electricity and cooling (via absorption chillers) for the site does not meet current emission standards and would have needed to be decommissioned by the end of 2014 causing a significant rise in energy costs to the Trust.



E.ON successfully demonstrated to the Trust that the turbine could be upgraded in order to meet the new EU emissions standards and to improve the overall efficiency of the energy centre. In addition we are also introducing other energy saving measures across the hospital including:

- Replacement of 12 HV transformers with more efficient units
- Upgrading the Steam Main Insulation to improve its efficiency
- Replacement of more than 1,700 light fittings with LED lighting complete with daylight and motion sensing capability
- Upgrading the site's Building Energy Management System (BEMS) for improved control

The standard contractual form for this type of Government backed EPC requires that E.ON is 100% liable for any savings not achieved below the guaranteed level.

EPC's

An Energy Performance Contract (EPC) is a partnership between the customer and an energy services company (ESCo) designed to save energy and cost for the duration of the agreement and beyond. It allows investment to be made to improve the infrastructure of a building (or group of buildings) with the cost of investment being paid for by the energy savings achieved.

The EPC provider identifies a program of works suited to the customer's requirements, and guarantees the level of energy savings that will be achieved as a result of their implementation

In many cases the new equipment will not only be installed and maintained by the EPC provider, but will be funded by them as well. This means that no capital investment is required, but instead a monthly service fee is charged by the ESCo with the contract guaranteeing that the savings sufficient to more than cover the fees, so the customer is cash positive in the first year.

As well as helping businesses and organisations to improve building performance, meet environmental obligations and lower maintenance costs, the client will also retain all future savings after the contract end.

Procurement Frameworks

E.ON is approved on all of the major public sector procurement frameworks including: RE:FIT 2; NHS SBS Carbon and Energy Fund CEF); Essentia and Birmingham Buy for Good (BFG) making it easier for public sector organisations to save.

E.ON Connecting Energies is a global business unit focusing on energy efficiency, on-site generation and flexibility / demand response management services to help our industrial, commercial and public sector customers lower their energy costs and comply with regulation.

E.ON is one of the world's largest investor-owned power and gas companies.

Our vision is to be our customers' trusted energy partner.

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