DONCASTER AND BASSETLAW NHS FOUNDATION TRUST

NIFES CONSULTING GROUP

PROJECT | NEW HOSPITAL ENERGY CENTRE INCORPORATING CHP

SITE | DONCASTER ROYAL INFIRMARY

NIFES were appointed under the auspices of the NHS Purchasing and Supply Agency contract, to review options for the replacement of the existing coal fired steam boiler house; incorporating CHP into the new facility.

Our report recommended the replacement of the existing plant with modern, efficient steam boilers and the addition of CHP based on a 1.1 MWe gas engine. We also identified the possibility of support for the scheme from the Community Energy Programme.

The brief was extended to complete an application for capital funding to the Community Energy Programme which was ultimately successful. The Trust was awarded a grant of £1.34m towards the construction of the new Energy Centre.

NIFES were retained by the Trust to carry out:

- the design of the Energy Centre
- prepare tenders
- assist with the procurement process
- provide project and contract management for the scheme, including the site work.

In order to maintain the hospital services during the strip out and construction works, the first task was to order and install the transportable steam boiler plant to take the site load. Once these enabling works were carried out, we started the removal of the redundant boiler plant and the demolition of the hospitals' landmark 43m concrete chimney. Then the cool storage and handling facilities could be started.

The new plant was installed and consisted of three new 11 Te/hr dual fuel (gas/oil) steam boilers and a 1.1 MWe gas engine based CHP unit linked to a waste heat steam boiler. The engine jacket heat is recovered to supply a proportion of the sites space heating load via a new low pressure hot water district heating scheme.

The energy centre required a new gas main which had to be delivered to the site from a location over 1.8 km away. The energy centre was brought on line in December 2006 and the temporary plant removed in January 2007.

Doncaster and Bassetlaw Hospitals NHS NHS Foundation Trust

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