VITAL ENERGi

CASE STUDY

University of Liverpool

DISTRICT HEATING

PROJECT SUMMARY:

CLIENT:
University of Liverpool and EMCOR Engineering Services Ltd

PROJECT:
District Heating

TIMESCALE:
June 2007 - Present

CONTRACT VALUE:
£7.5 million

OVERVIEW

Vital Energi is proud to have developed a strong relationship with the University which continues to the present day, and also worked extensively with contractors EMCOR and Bardsley Construction to several essential District Heating projects.

As with all public organisations, the University of Liverpool has adopted a Carbon Management Plan, with a commitment to reduce its CO2 output by 30% by 2017. To meet this commitment the university has invested heavily in a number of innovative projects which will contribute to a much greener campus.

Over the years, we have worked closely with the University to undertake multiple projects such as connection work at NW Campus, Melville Grove, Biosciences Building, Tudor House, Sports & Fitness Centre, Harold Cohen Library and Crown Place Residences. Along with the contract to design and build the energy centre and district heating network at the off-capus newly refurbished Greenbank Residences student accommodation.

VITAL'S SOLUTION

Like many similar organisations, The University of Liverpool has experiences huge growth in recent years, with student numbers increasing by 18% in 2013 alone. This expansion, along with carbon commitments sees the University undertaking a number of projects to mitigate its environmental impact.

With its reputation as a centre of research, knowledge and innovation the University wanted to create sustainable and renewable energy solutions which would have as little impact on the environment as possible, while providing outstanding value for money.

THE BENEFITS:

- Reduced CO2 emissions
- Future proofed network
- Long-term warranties on pipework and jointing
- Accurate and effective alarm system
- Low levels of disruption during installation
- Value added design and engineering

Vital Energi installed more than 1km of district heating pipework that was used to help connect up the CHP energy centre to University buildings.

'The University has worked very successfully with Vital Energi over the past six years in the delivery of a number of strategically important projects that have been delivered within challenging programme and budgetary constraints.'

IAN MURRAY, PROJECT MANAGER, UNIVERSITY OF LIVERPOOL

Tailor-made delivery programme to minimise disruption

Our first project for the University of Liverpool saw us install the main district heating system through major highways in Liverpool's city centre and its busy campus. With the Liverpool Campus remaining open during the work, Vital Energi designed the programme to keep disruption to the university and students to a minimum, often working at night and working around large electrical services. The project saw Vital install more than 1km of district heating pipe which connected the university's first CHP energy centre to University Buildings

Our in-house expertise allowed us to further assist the university by providing pipe size and design services and advice on future proofing their district heating systems, a take made more challenging due to the varying types and ages of building, some of which were over 100 years old.

As part of the contract, we would maintain the district heating network for a period of 15 years.

Completing additional work following original successful installation

After the success of the initial installation, our relationship with the University of Liverpool continued after they recommended us for additional district heating projects with its contractors. This work saw us extend the district heating main and connect additional buildings, installing another 0.9km of pipe and connecting additional premises, such as the Bioscience buildings.

In keeping with Liverpool's sustainable philosophy, these buildings are built to exacting BREEAM (Building Research Establishment Environmental Assessment Method) Excellent standards.

We are delighted to say that our relationship with the University of Liverpool continues and we continue to connect more buildings to the growing network, having already installed 7km of district heating with more planned for the future.

The combination of in-house talent and decades of experience have allowed us to meet the complex logistical challenges and deliver added value solutions, with particular success in pipe sizing and expansion solutions.

Designing and installing an energy centre into a Grade II listed building

We designed and installed a state of the art energy centre into the university's former mortuary and boiler house, meaning they now have energy centres feeding one of the most advanced district heating networks in the UK that has been robustly future proofed.