



PROJECT SUMMARY:



CLIENT

University of York

PROJECT

Multi Utilities

TIMESCALE:

2009 - 2012

CONTRACT VALUE:

£16 million

OVERVIEW

Vital Energi is helping to reduce The University of York's energy costs and CO2 emissions with the installation of a low carbon biomass and Combined Heat and Power fuelled community heating system. We are designing, installing and supplying the state-of-the-art system as part of the University's £750 million expansion programme which is upgrading its existing Heslington West campus and creating a brand new Heslington East campus to double the University's campus size.

The University's expansion programme has been divided into four phases which include multiple contracts and Vital Energi has successfully delivered four of the energy services contracts for both

phases, worth around £16 million, by demonstrating our competitiveness, good quality installations, ability to meet customer requirements and expertise in sustainable energy.

For Phase 1, Vital Energi installed a new multi-utility infrastructure corridor which will be extended during all four phases of the project to connect to new buildings as they are constructed. During Phase 2 we extended the multi-utility corridor and designed, supplied and installed two new CHP engines and one biomass boiler. We have also been awarded the contract to operate and maintain the CHP engines and biomass boiler for the next five years and manage the biomass fuel purchase process on behalf of the University.

CHALLENGE

The University of York has put renewable energy at the heart of its campus expansion plans. It investigated a number of alternative energy technologies and opted for a combination of CHP and biomass heating as providing the greatest opportunity to reduce carbon emissions.

The biomass boiler will help the University meet its commitment to provide at least 10 percent of the energy requirements of its new campus through renewable sources. Eventually it aims to make biomass boilers an integral element of the district heating system across the entire campus.

THE BENEFITS:

- > The Biomass Energy Centre is eligible for Renewable Heat Incentive (RHI) payment
- > The biomass boiler will contribute around 7,000,000kWhrs of thermal energy
- > Improved risk-transfer with Vital Energi responsible for co-ordinating all services



‘ The install went like a dream ... and for me your project manager for that job was outstanding. ’

KEVIN WHELAN, HEAD OF ESTATES AND OPERATIONS AT UNIVERSITY OF YORK

THE SOLUTION

Vital Energi used its specialist expertise to design the University's sustainable energy system to provide ultimate flexibility so that it can accommodate future changes to the legislative landscape and to incentive and funding schemes for sustainable energy. The biomass boiler was specifically designed to meet expected criteria for the new RHI scheme, which was under consultation at the start of the project, in order to maximise revenues for the University. The installations have comprised of a multi-utility corridor from the existing Heslington West boiler house to the new Heslington East campus. This work included the installation of around 2km of district heating pipes, telecoms and fibre optic networks and a high voltage cable ring. It also included the supply and installation of high voltage and low voltage equipment into two electrical substations and pipe-work modifications to the existing Heslington West boiler house.

Vital Energi secured the project by demonstrating our competitiveness, ability to meet customer requirements, good quality installations and expertise in sustainable energy. Our partnership with SSE Electrical helped

us secure the contract for installation of the multi-utility corridor. We have successfully completed the design and installation of two gas-fired CHP engines and a biomass boiler, integrated within an existing energy centre of the live operational campus development. The extension of the multi-utility corridor was completed in September 2012, the biomass boiler was installed in October 2012 and the CHP engines were completed in December 2012. In phase 2 of the project, Vital Energi installed the multi-utility infrastructure to the new Langwith College buildings and the Yorkshire sports village including district heating mains, gas infrastructure; site wide water mains; site-wide high voltage and low voltage cable installations; site-wide fibre optics; site-wide telecoms and a foul drainage system. In addition, we constructed three electrical substations, one temporary high voltage substation and one water booster station.

The biomass boiler has been designed to be re-locatable so that over time it can be moved into the redeveloped central energy centre on the Heslington West campus.

THE CONCLUSION:

The University of York marked one of the first multi-utility projects that Vital Energi implemented. It highlighted our ability to provide clients with the risk-transfer benefits of having one contractor responsible for co-ordinating all the services.

KPI SCORE

97%

Above industry standard achieved for communication & responsiveness on York Biomedical Building

We have developed a close working relationship with The University of York over the four years of its ambitious expansion plans and continue to be its preferred partner in the creation of its low carbon campus.