



PROJECT SUMMARY:



CLIENT
Camden Council

PROJECT
Somers Town Heat Network O&M

TIMESCALE:
2015 – 2032

CONTRACT VALUE:
£1.3m

OVERVIEW

Vital have been working with Camden Council on the Somers Town Heat Network since 2014 when we began work to install a district heating link between existing individual communal heating networks to create one system. We installed 581m of underground district heating pipe connecting the existing networks to a new communal energy centre which was

retro-fitted into an under-used car park. This project will help Camden Council reach their carbon emissions reduction targets of 40% by 2020.

We are providing operation and maintenance services for the scheme for a period of 15 years with pre-determined targets to abide by.

THE SOLUTION

We first began operation and maintenance services upon completion of the first phase of the project in 2015, and this has seen us monitor the new energy centre, plant sub-stations and the newly installed district heating pipe.

Large scale project requiring specialist software to maximise monitoring capabilities

This project has been quite different to traditional London projects due to there being

one main plant room with 7 substations currently, as opposed to having all the plant in one building. Due to the size of the network, there is also a large amount of equipment spread over these plant rooms with the main energy centre holding three modular boilers and associated equipment, with a new CHP engine and thermal stores being installed, and the substations holding heat exchangers.

In order to provide the

THE BENEFITS:

- > Four hour callout limit for an engineer to visit site following system failure
- > On call engineers available at all times making weekly visits to inspect equipment
- > Guaranteed system efficiencies to maximise the projects savings
- > Co-ordinating and overseeing all manufacturer servicing
- > Specialist software allowing for remote system access to enhance monitoring capabilities

▶ The long-term operation & maintenance contract will see us perform O&M duties on the project until 2032



‘Vital Energi are a key long-term partner for our Somers Town Energy project helping us use district heating systems to decarbonise our housing stock’

James Davies, Sustainability Projects Manager

most efficient monitoring capabilities, all these plant rooms are connected, via an optical cable, to the main energy centre. This allows us to remotely access the equipment using our SCADA system which is checked daily for any alerts.

Weekly site visits to perform comprehensive equipment inspections

Each plant room is visited on a weekly basis which allows our experienced engineers to complete visual and audial checks of all the equipment. These checks involve looking for leaks or corrosions, along with performing manual meter reads and data collection to monitor the operation of the equipment. System pressure checks are also completed which ensures all residents are receiving a strong supply of heat and hot water.

Servicing of the equipment is completed by manufacturers and specialist subcontractors, and is overseen by our engineers. These services take place at various times in the

plant equipments' life, for example, the gas boilers and district heating pumps are serviced annually, whereas the gas and fire alarms are serviced twice a year.

Reducing disruption during planned preventative maintenance activities

Planned energy shut downs only occur during select maintenance activities such as gas and fire alarm tests which only occur every 6 months. We keep disruption to residents at a minimum by only cutting off supply momentarily for up to 5 minutes.

The only other time there is a planned system shut down is once a year to empty the strainer which captures any debris from the water system to prevent it travelling around the scheme. As this can take a few hours to complete, we ensure the client is made aware of the activity in good time to inform the residents. We plan to complete the task during the working day when less people will be at home to reduce the disruption to the residents.

Guaranteed minimum operational efficiencies performance detailed in monthly reports

We have specific Key Performance Indicators (KPI) which have been laid out in our service agreement regarding the system efficiencies. Some of these KPIs include providing 24/7 heat and hot water, an overall system efficiency of over 79.8%, and individual boiler efficiencies of above 80%. The results of these KPIs are all detailed in a monthly report that is supplied to the council which calculates the system efficiencies and can be used to compare previous months to identify system optimisation opportunities.