Notting Hill Genesis: Thomas Road

Thomas Road, situated in Poplar, London is home to a 13-year-old development comprising 182 dwellings under the umbrella of Notting Hill Genesis (NHG). Although well established, the development faced the persistent issue of elevated heat losses. This concern not only affected the cost of heat for residents but also led to overheating in communal areas. Recognising the urgent need for change, NHG embraced a partnership with FairHeat to address these challenges under the Heat Network Optimisation Opportunities (HNOO) scheme.

Challenges and Background

The heat network at Thomas Road struggled with excessive heat losses. This not only inflated the cost of providing heat to residents but also resulted in overheating within communal spaces, neither of which were suitable nor conducive to a comfortable living environment.

FairHeat's Optimisation Study and HNES Demonstrator

In response to these issues, NHG enlisted FairHeat's expertise to conduct a comprehensive optimisation study. Leveraging the Heat Network Optimisation Opportunities (HNOO) scheme, FairHeat meticulously assessed the situation, culminating in a robust business case that underscored the necessity for a comprehensive system upgrade. This study laid the foundation for the transformative journey ahead.

Capital Works

The partnership between NHG and FairHeat did not stop at a study—it was the inception of a strategic overhaul. Under the Heat Network Efficiency Scheme (HNES) Demonstrator, the project secured vital funding for capital works, paving the way for a series of targeted interventions.

The scope of these works was comprehensive and included several key elements:

- HIU Repair and Servicing: The upgrade encompassed HIU repair, recommissioning, and servicing, aimed at enhancing overall performance and reliability.
- Optimised Pump Circuits: Redundant pump circuits were removed, streamlining the system's functionality and efficiency.
- Water Quality Enhancements: A retrofit of a side stream filtration unit and remote water quality monitoring equipment brought remote visibility and proactivity to the maintenance of water quality.
- Efficient Thermal Store Utilisation: Idle thermal stores were repurposed, further optimising energy usage.

Outcomes

The outcomes have been transformative. The improvements in HIU performance and reliability have led to reduced system outages, offering residents a consistent and dependable heat supply. The introduction of remote water quality monitoring empowers a more proactive approach to operations and maintenance, ensuring the well-being of the network over time. Furthermore, the optimisation efforts collectively contribute to energy efficiency and cost reduction.

Conclusion

Thomas Road encapsulates how targeted interventions and strategic collaboration can breathe new life into aging heat networks. Through the collaborative efforts of NHG and FairHeat, the challenges posed by elevated heat losses have been met head-on. The HNES Demonstrator has fuelled a comprehensive system upgrade that translates into improved reliability, efficiency, and resident comfort. This success has transformed Thomas Road and is an example to others looking to revolutionise their heat network performance.

> *The reliability and efficiency of heating and hot water services to residents and our stakeholders at Thomas Road has improved significantly. Before the HNES works there were frequent filter blockages, and HIUs were bypassing, resulting in intermittent heat delivery within properties. The pipework and pumps in the plant were oversized, and this translated into high energy consumption and residents paying higher than necessary heating costs. Since completion of the heat improvements, we have seen gas consumption by the plant come down by 36%, a reduction of 462,000 kWh's over a six-month period, representing a saving of 43,761 m3 in carbon emissions.* ***– Jenifer Mclean, Major Works Project Manager, Notting Hill Genesis***