HEAT NETWORK
EFFICIENCY SCHEME

CASE STUDY –
CLIVE LLOYD HOUSE OPTIMISATION

Summary	
Network name	Clive Lloyd House
Network owner / operator	Notting Hill Genesis
Location	Haringey
Number of residential / commercial customers	27
Heat source	Gas
Total funding awarded	£17,352
Optimisation Study delivered by…	FairHeat
Top three recommendations for improvement	• Install Heat Interface Units (HIUs) and new radiators and recommission space heating. • Replace pipework in plant and communal areas. • Reinsulate, and install heat meters across the entire network.

Overview of heat network

Clive Lloyd House is a Notting Hill Genesis sheltered housing scheme located in Haringey, London, N15. It consists of 27 dwellings, which are occupied by elderly residents in need of extra care and support. The plant room equipment and network have aged, having been installed when constructed in 1985 and the whole system needed assessment and

improvement / replacement. There is no individual metering in these dwellings as the cost versus benefits analysis concluded that this would not be value for money. However, if meters were to be installed as part of a larger package of heat improvement works, part funded by DESNZ, then financial viability would improve.

Details of why the project was needed

There have been several issues with the operation of the communal heating, which has driven customer dissatisfaction. This includes heating and hot water outages, overheating and complaints from residents about a lack of individual control on heat levels to their comfort. The ambient heat temperature on the network is very high, and radiators are bypassing. The levels of lagging thickness on the network pipework are currently low. Much of the pipework is buried within the fabric of the wall and floors and is therefore unlikely to be insulated. Boiler temperature in the plant room is high (up to 75°C), with pumps running at high speeds, and no plant heat metering. Panel heaters in the communal areas were also found to have faults.

Recommendations proposed by the Optimisation Study

FairHeat have proposed two different sets of major works to improve the efficiency and effectiveness of the heat network.

- Work Package 1: The first, lower cost package includes re-pipe work to the existing radiators and re-insulating, as well as recommissioning network pumps. In addition, the work package includes the fitting of heat meter and automatic meter reading devices across the entire network.
- Work Package 2: The second, higher cost package of work proposed involves installing HIUs and replacing radiators across the network and putting in additional control measures such as programmers and heat meters. Pipework in the plant and communal spaces would be replaced and lagged with 50 mm insulation, meeting CP1 guidance where possible. This would enable the boiler set point to be reduced to 50°C.

Projected benefits realised from proposed measures

Budget permitting, NHG proposes to proceed with Work Package 2. This retrofit of radiators and pipework will reduce heat temperatures and heat loss and enhance customers' experience of the heating and hot water services. There will be enhanced visibility of the heat system, including monitoring of energy usage, and improved billing and metering information.

Benefits to network customers

Sheltered residents would experience a more comfortable level of heat, and any reduction in gas and electricity costs would be passed on. Residents would also have individual control of heat in their homes via new thermostats and programmers, resulting in increased customer satisfaction and a reduction in complaints about the building's heating and hot water provision.

Next steps

Notting Hill Genesis will be applying for HNES Capital funding to financially support the delivery of Work Package two. We expect this submission to be made in Round 8 and will be proceeding with the appointment of a principal designer and principal contractor to deliver the heat improvement in 25/26 budget year.

Quote from heat network owner and/or customer

"Clive Lloyd House has been identified as a typical care and support property with an inefficient unmetered heat network. This property's current system represents poor control, poor efficiency and communal and dwelling overheating. We plan to deliver a new heat network within Clive Lloyd House which fully complies with CIBSE CP1, ensuring we deliver the best outcomes for the most vulnerable tenants. A retrofit of this type will also shape our strategy when it comes to unmetered care and support properties with two pipe heating systems and domestic cylinders".

Dan Perager, Head of Heat, Energy and Water, Notting Hill Genesis