

Holyrood, Southampton City Council

Holyrood is a 25-year-old development run by Equans UK in Southampton. The complex serves 274 dwellings across 10 blocks. It utilised a 2-pipe heat network with uninsulated, deconstructed single-plate HIUs, resulting in substantial heat losses (around 979 W/dwelling). To address this, Southampton City Council collaborated with FairHeat under the HNES Demonstrator to conduct an Optimisation Study, leading to significant improvements in efficiency.

Challenges and Background

Holyrood faced challenges due to its inefficient heat network and uninsulated HIUs, resulting in substantial heat losses and inefficiencies. This prompted Southampton City Council to engage FairHeat to support with a HNES Demonstrator Funding application and to conduct an Optimisation Study.

FairHeat's Optimisation Study and HNES Demonstrator

FairHeat proposed a single work package to optimise the network. This included insulating primary pipework within dwellings, resolving HIU/dwelling bypasses and control issues, recommissioning space heating systems, reinsulating external network pipework, and implementing a plant room control strategy once works were completed. These measures aimed to significantly reduce heat losses and enhance overall efficiency.

Outcomes

The projected improvement in performance is promising with an expected 87% reduction in heat losses. As a next step, the Holyrood project has applied for HNES capital works funding to implement a pilot retrofit program across 2 risers in a single block.

"For the UK to be able to reach its Net Zero aspirations, heat networks are going to play a fundamental role. Southampton has some of the oldest heat networks in the UK, with our first being installed in 1986! Funding such as HNES is vital in the face of increasing energy prices and inflation to help Southampton continue its heat network legacy and strive towards Net Zero. Gemserv were responsive and clear with their communications, both before and during the application process." – Jason Taylor, Energy Manager, Southampton City Council