



PROJECT SUMMARY:



CLIENT
HOBESCo

PROJECT
District Heating & HIUs

TIMESCALE:
March 2019-Ongoing

CONTRACT VALUE:
£900,000

THE BENEFITS:

- > Reduced water loss through remedial repairs
- > Ease of expansion through forward planning
- > Comprehensive, single-contractor primary side solution

OVERVIEW

The ambition behind The Hill of Banchory project was to create a truly sustainable community in the Scottish Highlands with an energy infrastructure which could expand to meet the growing development throughout each of its six scheduled phases.

Situated 20 miles from Aberdeen the project will see the creation

of homes, commercial space, a leisure centre, nursing home, hotel and other general infrastructure necessary to create a thriving and vibrant community. Low-carbon heat is provided via the biomass district heating scheme which we designed and installed in 2012 and the development was now undergoing further planned phases of expansion.

THE SOLUTION

We completed the first main phase of works in 2012 and later returned to undertake further district heating works in 2019 which would facilitate the development's expansion. As with our earlier involvement, there was a strong focus on the quality of installation and ensuring an efficient, long-lasting heat networks which would deliver low carbon heat to residents and businesses over the coming decades.

Oaklands Phase 4 Development

We returned to the project after winning the contract to design, supply and install the district heating connections to the Oaklands Housing Development. This phase involved connecting a total of 40 flats, 26

houses and a nearby dance studio.

Our team connected to the existing 125mm district heating network with a 100mm main and sub branch of 65mm district heating extension to feed the development. Branches were created to service each residential property and these were between 25mm and 50mm in diameter and made up of flexible plastic pre-insulated pipework & steel pre-insulated pipe work. By combining a steel main with flexible branches we were able to create a cost effective solution which still performed optimally whilst also allowing the main house building contractor to continue their works as programmed.

Part of our contract saw us take on responsibility for the supply

▶ In addition to completing the original biomass energy centre and district heating scheme more recent works have included connecting Phase 4 of the Oaklands development, Banchory Leisure Centre and phase 1 of The Lochside Leys.



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and installation of all the Hydraulic Interface Units (HIU's). This is a particularly important step as if not correctly installed or maintained, HIUs can have a detrimental effect on the overall efficiency of the heat network. In the flats, we also designed, supplied and installed the riser and lateral pipework which carries the hot water into the apartments and to complete the works package we pressure tested, flushed, insulated and commissioned all elements of the primary system.

Banchory Leisure Centre

As part of the planned expansion, Banchory Leisure Centre was connected to the same district heating scheme and we designed, supplied and installed an extension in 125mm pre-insulated primary pipework off the previously installed 125mm feed, as well as undertaking all civil engineering works along a range of terrain which included private landscaped areas, live highways and other sites controlled by other principal contractors. This required not only detailed planning and preparation, but also a comprehensive understanding of the other contractors needs so that we could work together to best deliver the overall programme

without clashes or causing delays.

Once the district heating mains from the building entry had been installed we then extended the 125mm pipework up to a mezzanine floor to connect to a 900kW plate heat exchanger skid which had been built by Vital Energi in their pre-fabrication workshop. We then commissioned the plate heat exchanger to ensure the correct levels of heat were provided.

Lochside Leys Phase 1

Our latest addition to the project is connecting the Lochside of Leys housing development. The work on this Phase is still ongoing but will see us connect 56 homes for the developer Bancon Homes. We will be installing all below ground district heating pipework from the existing energy centre in a 200mm main with relative branches and sub-branches to directly feed all the plots as well as leaving the capability to extend this network in the future to a wider development. This is as well as supplying and commissioning HIUs, providing the entire primary side energy connection for the development.