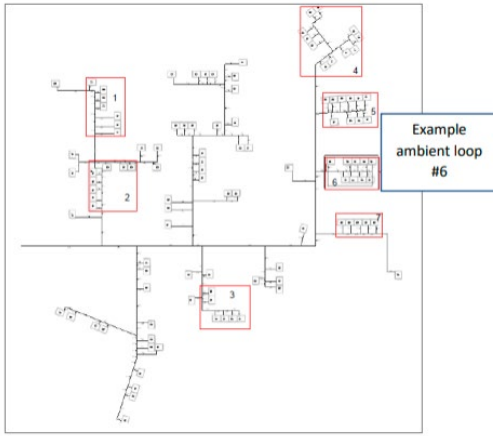
Partington Low Carbon Heat

RCEF Stage: 1



The Story

Partington is a rural area in the Trafford District with an approximate population of 7,000. Large parts of Partington are made up of social housing (approximately 75% are owned by Your Housing Group recipient of this grant). The feasibility of a low-carbon energy network was less about a technical solution, as the use of low-carbon heating systems is now widespread in the UK, but to identify a commercially viable low-carbon system, that can deliver **affordable** energy to residents, when competing against mains gas (which is widely available in Partington), in the post-Renewable Heat Incentive era, against a backdrop of very high grid-based electrical tariffs. 6 archetypical properties had detailed energy audits and then 116 were included in the modelling.

Lessons Learned

Community benefits of the proposed scheme included: 1. Lower energy bills for residents of the scheme. Based on the base case scenario, on average a saving in the region of £168/year for the first year, compared to the cost of using a traditional gas heating system. 2. Carbon savings. Based on current grid carbon intensity figures supplied by BEIS for natural gas and the national electrical grid, an ambient loop network for 150 homes will save an estimated 347 tonnes of carbon dioxide per year, though as noted above, the low carbon energy network could be replicated more widely. 3. The removal of gas boilers will offer improved local air quality. 4. Enhanced future-proofing on energy pricing (as a result of reduced reliance on imported energy). 5. Increased local retention of energy expenditure. 6. Utility savings represent approximately 130% additional income for waged households 7. Potential long-term investment income for the local community, should a scheme be developed for community investment. The model indicates that an annual return on investment of ~ 4% could be available to local investors, which is likely to be competitive when compared to returns available from traditional savings options.

Key Facts

Green Heat Network Fund	The next step would be to work with Dept BEIS to look at the Green Heat Network Fund.
Grid	Ambient loops put less pressure on the grid as peak load is lower.
Heat Pumps	ASHPs are not appropriate for some housing, inc flats and terraces where there are space constraints.

Key Figures

Project size: Tech type	Shared Ground Loop and heat pumps for 116 properties.
Energy Generation	1,200 KWh thermal
Private finance leveraged	£1.9m
CO2 savings	347 tonnes pa
RCEF grant	£29,875

Further notes

LEP area: Greater Manchester

Link for further info: eQuality Heat from eQuality Homes