



Heat Networks Webinar Brief

June 2024

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Introduction to Heat Networks:

Whilst Heat Networks are in their infancy within the UK, the technology has existed for centuries. The Roman Baths famously operated on heat networks, and more recently the Danish have introduced heat networks as a viable system. There are a large selection of Heat Networks including: Existing building heat, Open Loop System, Close Loop system, Geothermal and Low temperature. There has been a push towards more low temperature networks, although its worth noting that this particular project is of a high temperature nature.

Swaffham Prior:

Swaffham Prior is a village located East of Cambridge, approximately halfway between Cambs and Newmarket. Its structural assets include two churches, two windmills, a school, and a pub. The demographics are worth noting; more than 50% of the buildings are over 50 years old, meanwhile more than 50% of residents are over 55 years old – a significantly ageing population. The village is not on a gas network, they remain on an oil-based system. A community land trust was established which constructed eight new homes for young people to remain in the village – these are all powered by air source heat pumps.

Timeline of Events + Funding:

- *December 2017.* £20,000 grant from Rural Energy Fund. This was put towards a study for the feasibility of a district heat network for Swaffham Prior. Cambridgeshire County Council put forward support as they had unused green space in the village. Together, they collaborated to make 'Heating Swaffham Prior'.
- *December 2018.* £40,200 grant from Heat Network Delivery Unit (HDNU), Cambridgeshire County Council match funded a £20,000 grant. This was put towards an evolved brief to establish 'zero carbon' heat network.
- *March 2019.* £100,000 from HDNU with additional £30,000 from Cambridgeshire County Council which completed the Borehole testing.
- *January 2020.* £232,000 from HDNU with £66,000 from Cambridgeshire County Council to begin the planning process.
- *June 2021.* £3.26million grant from HDNU to begin construction.

Existing Setup:

- 2x 750 kW Ground Source Heat Pumps (GSHP).
- 1x 500 kW Air Source Heat Pump (ASHP).
- 3x 400 kW Electrode Boilers.
- County Council's solar farm privately connected to power heat network.
- Energy centre holds 200,000 litres of hot water storage as emergency in tanks.

Current statistics + carbon savings:

The overall impact of this project is an estimated 1000 tonnes of carbon saved with a simultaneous reduction in oil imports. There are currently 64 properties connected to the heat network with the possibility for a further 50, once solar farm is connected.

Community + Media Response:

Severe backlash amongst the community and media. The project was attacked multiple times within local and regional papers. Some individuals voiced concerns about the fact they were already using green companies for their energy so saw this project as a wasted venture, others seemed opposed to green tech and policies altogether. There was also a large amount of scaremongering on social media about the project. Other inconveniences like roadwork traffic were blamed on the project when in reality they were unconnected. However, whilst it was a loud voice of discontent, it was a relatively small but persistent group.

Questions + Answers:

What's been put in place to ensure community security?

A heat supply agreement set up with the county council.

Who owns and manages the heat network?

Cambridgeshire County Council.

How do you engage with communities in the early stages of the project?

First step is to look professional, we hired project manager who designed a logo and website, not to mention activity booklets for kids. The next step is to be communicative – we held Q+A sessions for local residents to ask their questions direct to project engineers.

What was the level of awareness at the beginning?

Not massive at the beginning, it was initiated to combat fuel poverty. However, Greta Thunberg and rise of the popularised green movement really helped in bringing it to the spotlight.

Do you think having two phases of rollout helped to bring in other detractors who needed more convincing?

Yes. Once people saw friends with the installation, it generated a level of trust in the development.

Have volunteer hours been counted?

No, but the project was heavily reliant on volunteers, there was mass community effort.

Would it not be more cost effective to install it on a new-build properties rather than waste money on retrofitting?

It comes down to legality. You wouldn't be able to do it unless new homes were owned by the council, so it is often entrapped to existing council-owned properties which require the retrofitting.

Future Events and Further Details:

Book the next webinar here: <https://www.eventbrite.com/cc/community-energy-fortnight-webinars-3460489?utm-campaign=social&utm-content=creatorshare&utm-medium=discovery&utm-term=odclsxcollection&utm-source=cp&aff=escb>

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For more information about the project, please visit: [About Swaffham Prior's Heat Network | Cambridgeshire County Council](#)