

SWAFFHAM PRIOR HEAT NETWORK



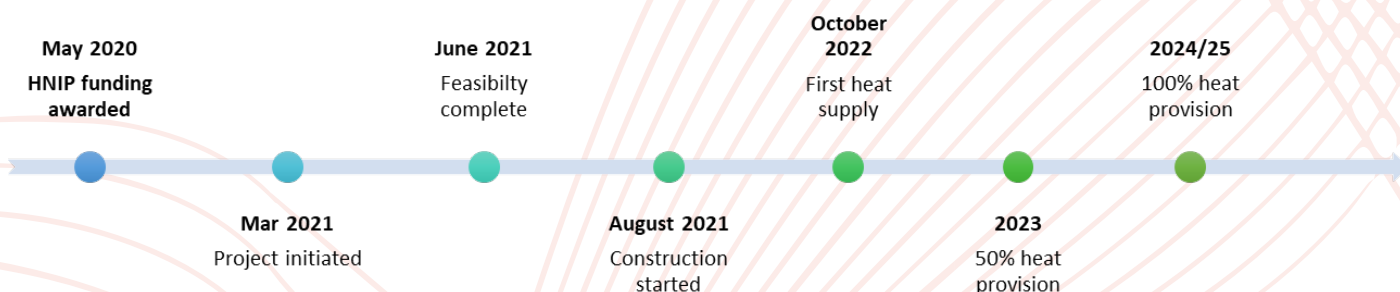
Funding beneficiary	Cambridgeshire County Council
Location	Swaffham Prior, Cambridgeshire
Total project capex	£12,330,000
Funding awarded	£3,268,000 commercialisation and construction grant
Planned/estimated heat export at completion	4.4 GWh per annum
Heat source & technology	500kW Air Heat Pump, two 750kW Ground Source Heat Pumps and an upcoming connection to the 12MW North Angle Solar Park
Thermal storage capacity planned	200m ³ thermal stores and four electric boilers
Key anchor loads	297 residential houses and the Village Hall
Length of primary network	5.3 km
Anticipated number of buildings and/or connections	297 residential houses and the Village Hall
Annual carbon savings (average over first 15 years)	1,052 tCO ₂ e

The Swaffham Prior Heat Network scheme is a success story in terms of both a sustainability and community project. This network first began in 2018 when the Swaffham Prior Community Land Trust (SPCLD) approached Cambridgeshire County Council. Their aim was to collaborate on a scheme that would help the community as a whole transition from heating oil to low carbon heating. After exploring various options to support the switch to low carbon heating, the decision was taken to opt for a community heat network. The scheme initially received grant funding support through the Heat Networks Delivery Unit (HNDU) and further funding for commercialisation and construction through the Heat Networks Investment Project (HNIP). Bouygues Energies and Services Ltd are the design and build contractors and to meet the rare challenge of delivering a heat network to an entire village they procured Pinnacle Power to deliver the heat network.

The Swaffham Prior Heat Network is a low carbon community heat network with ground source and air source heat pumps powered by solar panels, providing a unique hybrid solution. The community-wide scheme will provide a blueprint model for other rural communities currently reliant on oil heating.

Construction started in August 2021 and the energy centre and heat network were largely completed by the end of 2022. Heat on for the first five homes was in October 2022 and a programme to connect the remaining homes to the heat network is now underway. The aim is for 120 homes to be connected during 2023 if possible.

Project Milestones



The Story So Far*

The Swaffham Prior Heat Network's central aim was to remove the reliance on oil heating units in the local area, and shift everyone to a more sustainable and cost-effective alternative without a negative difference in heating capabilities. The project has been community led through a series of presentations and meetings held with members of the SPCLD and those who would be supported by the scheme. Each of these opportunities allowed households to agree to be connected to the network during the phased rollout. Whilst the Energy Centre was being created, residential buildings were surveyed, and residents were directly communicated with by Bouygues and Cambridgeshire County Council, the owner and main funder of the project.

As of January 2023, the Energy Centre is 99% complete, with the final steps to full conclusion underway. In its current state, the Energy Centre is functional and has been connected to five homes. The primary heat network is 100% complete, with more houses being added via secondary pipework installations throughout this year. The work to connect the North Angle Solar Farm to the Energy Centre has also commenced.





Project Insights

Resident feedback and regular engagement played a pivotal role in the project's success, creating a positive and community-driven approach. By collaborating with stakeholders and understanding their concerns, the team has fostered a sense of community involvement and ownership, resulting in a high level of customer satisfaction.

Area suitability for the heat network was also a recurring theme throughout the project, with each case offering a slightly different challenge. Working with the local area and residents has been an important element to consider in all aspects of delivery.

Efficient management of challenges, such as asbestos which was particularly time consuming to overcome, highlights the team's proactive approach and commitment to delivering a safe and successful project and will contribute to continued success in future endeavours.

Sheryl French, Assistant Director, Climate Change and Energy Services said:

"This is a fantastic project and a first of its kind that we know of in the country. Retrofitting a whole village is a challenge but the Swaffham Prior Community Land Trust has been a great partner driving the project forward. Securing the funding is a huge step in creating accessible renewable heat for oil dependent homes in Cambridgeshire. Cambridgeshire County Council is committed to tackling climate change and I'm looking forward to seeing the continued success of this project."



*Up to date as of March 2023