Swaffham Prior Heat Network

Cambridgeshire County Council (CCC) is committed to reaching Net Zero carbon by 2050 and has developed an Action Plan to help achieve this. Reaching Net Zero will demonstrate the council's dedication to both preserving the local environment and reducing the impacts of climate change.

The Challenge

Equans is delivering a renewable heat network for CCC to serve the village of Swaffham Prior. The aim of the project is to deliver a system where 100% of the thermal energy demand of the village is met by renewable energy.

Like many rural villages, Swaffham Prior is not connected to the mains gas network. Consequently, residents rely on stored fuel to provide heating and hot water in their homes. Not only is stored fuel carbon intensive, it makes the village vulnerable to shortages and inflated oil prices. The heat network will replace the existing storage infrastructure and in doing so will overwhelmingly reduce the village's carbon emissions, eliminate environmental hazards and protect residents from the associated risks of stored fuel.

Project Overview

There are four key deliverables for the Swaffham Prior Heat Network project:

- An energy centre: for the generation of renewable heat, connecting to an extensive ground-loop borehole array and consisting of two ground source heat pumps and one air source heat pump.
- A heat network: a series of buried pipes to distribute thermal energy through the village.
- Heat interface units (HIUs): connecting residences to the heat network.
- A private electricity network: to power the energy centre with renewable electricity.

The Client Benefits

The project facilitates CCC meeting climate and sustainability goals:

- Innovations/ future market model: Investment in pioneering low carbon technology and new business models to shape the market for Net Zero.
- Improvement of local air quality: Eliminating sources of air pollution.
- Green spaces & land management: Aligning with local planning policy for biodiversity net gain.
- Support: Parish councils and community land trusts to shift rural communities off oil into renewables.

Strategic Deliverables

Economic: the scheme will generate a long-term revenue for the council through the sale of heat to residents, subsidy revenues and carbon trade.

Carbon Emissions: Simulation models suggest the heat network will deliver 95% emissions abatement in year one, rising to 96% by 2030 and 99% by 2050. This enables CCC in meeting Net Zero targets and associated environmental strategies.

Social: The heat network will be no more costly to residents than fuel oil, and eliminate the hazards associated with stored fuel.

Our Engagements

- **Commitment Performance Energy :**

Equans guarantees by contract a reduction in the electricity consumption of your lighting network.

- **Commitment Proximity :**

With more than 200 locations in France, we are committed to the availability of its supervision and intervention teams.

- **Commitment Transparency :**

We transparently display energy consumption measures for installations and equipment piloted.

Key Facts.

- **100% Renewable Heating and Hot Water Source for Residents**
- **300 off-gas Homes with Access to Network**
- **1,052 tonnes of Carbon Abatement over 10 years**