

Community Heat Network

Challenges & Opportunities

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Local energy with Local Ownership









Consultancy



Community-led Heat

Solar Panels

Energy Centre

Thermal Store

Boreholes

Heat Network

— Supply Pipe
— Return Pipe



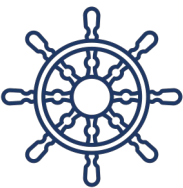
Why does a locally-led approach matter?



Heat Networks require **local buy-in**, which community organisations are well placed to secure.



Heat networks deliver **local benefits**, including air-quality improvements and fuel poverty reduction.

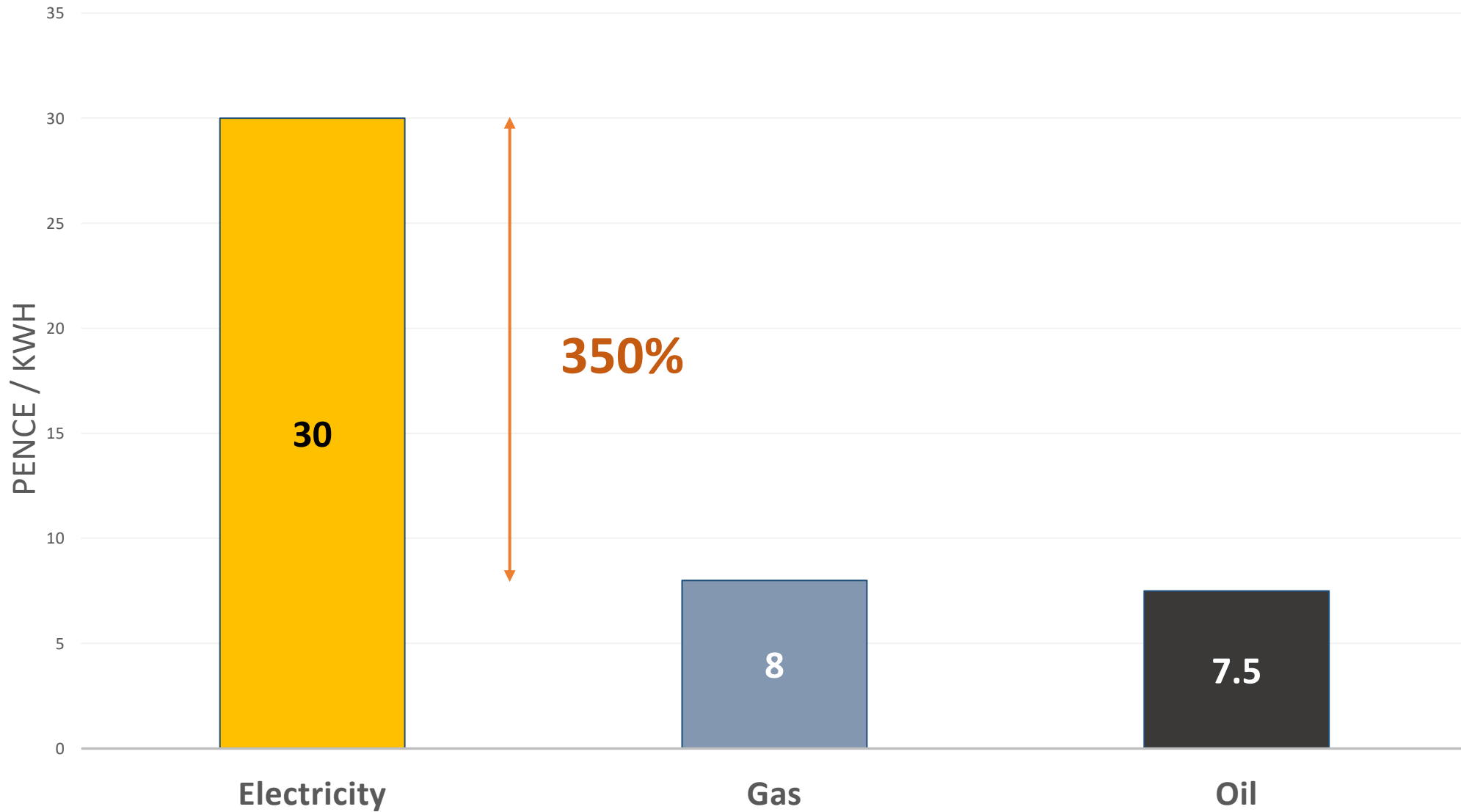


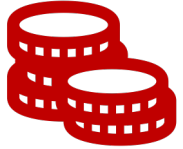
Heat networks require **local control**, where community organisations can facilitate.

Challenges & Opportunities



Bristol LEAP, 3MW Water-source HP





Costs: High upfront costs and challenging access to finance.



Risks: Expensive, long-term infrastructure projects.



Design complexity: Energy demand, generation technology, and temperatures.



Securing buy-in: Cost, disruption, trust.



Need: Heat networks are part of UK and Scottish Government net zero targets.



Focusing on Demand: Delivering community-led projects in urban areas.

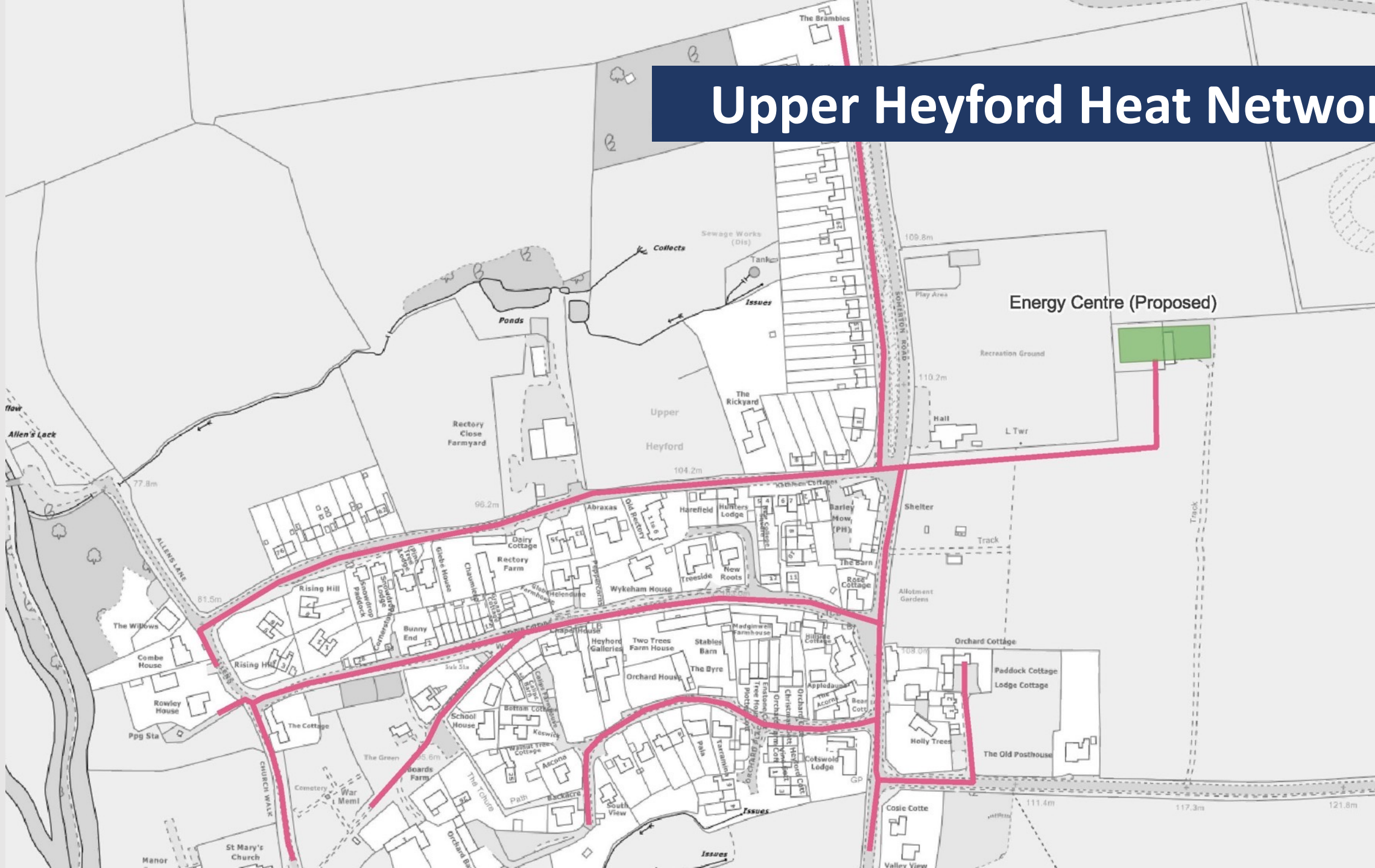


Facilitating Development: Initiating projects, developing partnership, delivering engagement.



Innovation: Investigating distributed heat generation, low temperature supply.

Upper Heyford Heat Network





Test Borehole

Context

- 167 homes
- 2,500 MWh annual demand

Solution

- 134 closed-loop boreholes
- 800kW Ground-source heat pump
- 400kW Air-source heat pump
- Village-wide high temperature network



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