Heat Networks:

The Landscape in Scotland



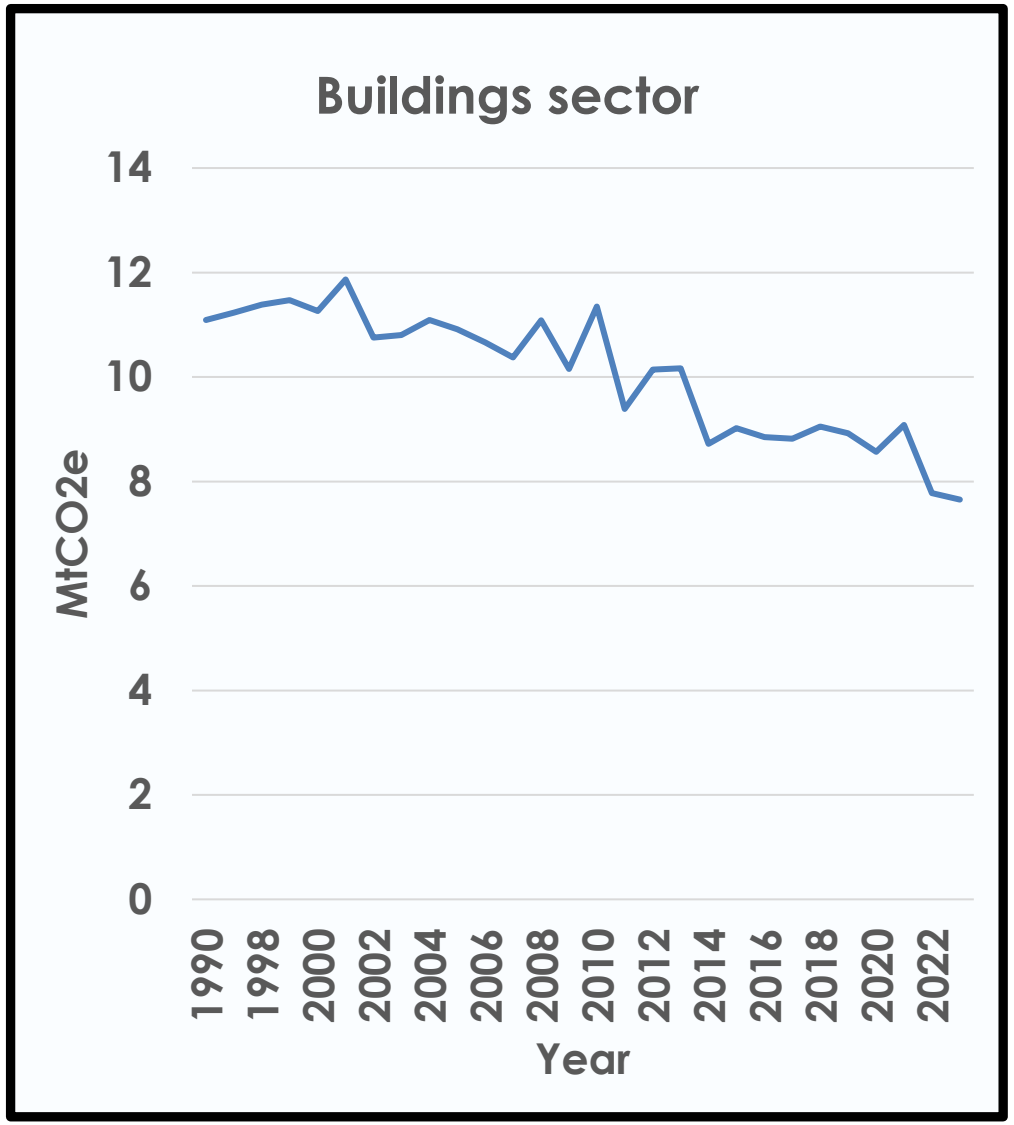
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Context

- Buildings need 80 TWh of heat, creating 19% of total emissions (third-largest cause)
- 2,450,000 homes and 220,000 non-domestic buildings
- 40% of homes are flats, and 10% of non-domestic buildings are public buildings
- Energy efficiency –

  56% of homes = EPC C or better
  32% of non-domestic buildings = EPC C or better

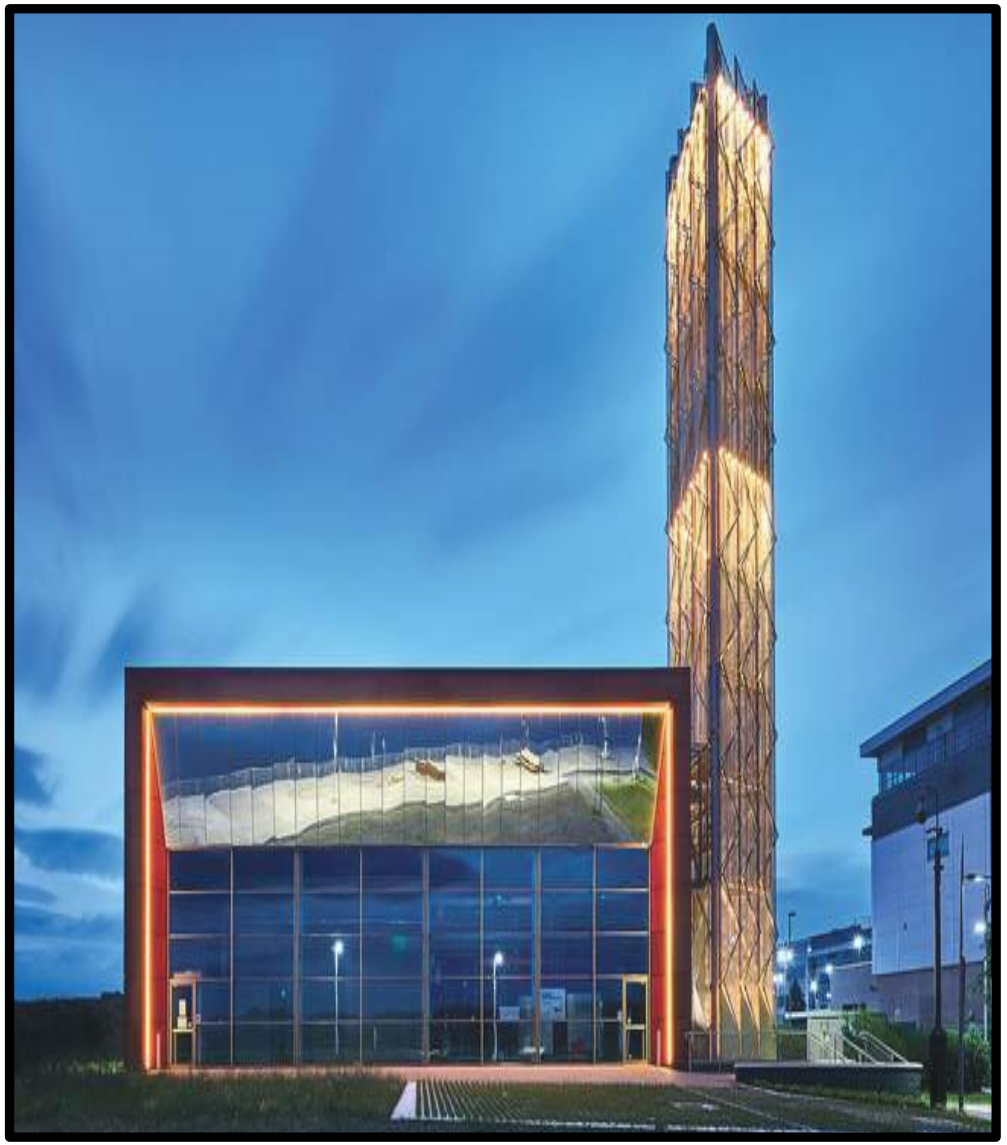
- **34% of homes are in fuel poverty**; by 2040, <5% of homes should be



Heat Networks Today

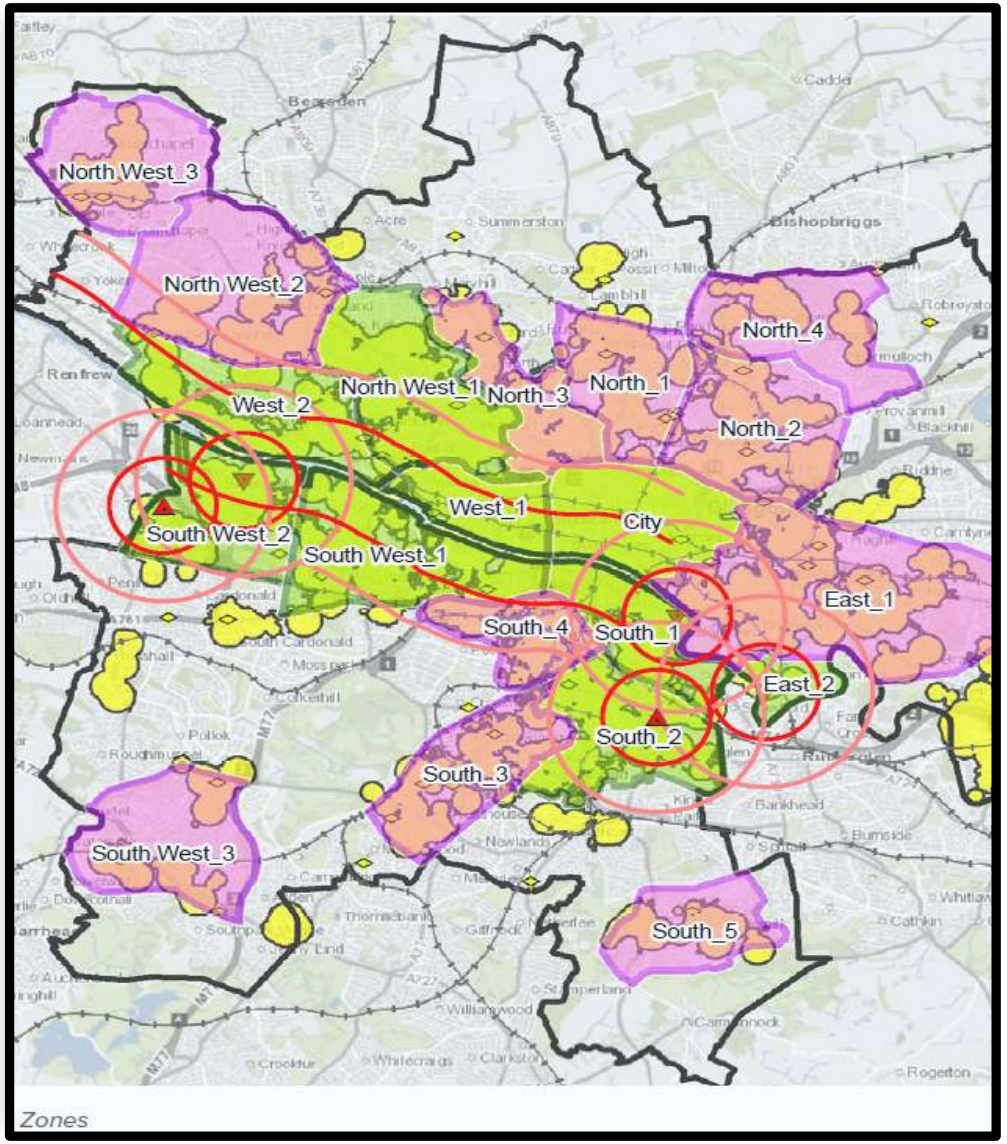
- Over 1,300 heat networks across Scotland
- Supplying over 36,000 homes & 3,000 non-domestic buildings
- **No restrictions** on who may develop / own heat networks in Scotland
- Local authorities often acting as project lead, with support from SFT and ZWS
- Legal targets –

  2.6 TWh by 2027 (3% of total heat demand)
  6 TWh by 2030 (7.5%)
  7 TWh by 2035 (9%)



Potential for Heat Networks

- Potential for up to 15.1 TWh of heat supplied by heat networks, investment of over £18bn.
- Equivalent to 20% of Scotland's heat demand.
- Reaching this potential could lead to –
    - £12bn of investment over 20 years
    - Annual net GVA to 2045 = £350m p.a.
    - Supporting >7,000 jobs (at peak)
    - Ongoing employment of >1,000 net jobs
    - Annual net GVA after 2045 = £125m p.a.
    - Air quality improvements of £35m
    - Removal of 4% of Scotland's total emissions



Heat Networks: Major Policies to Date



LHEES



HNSU



SHNF



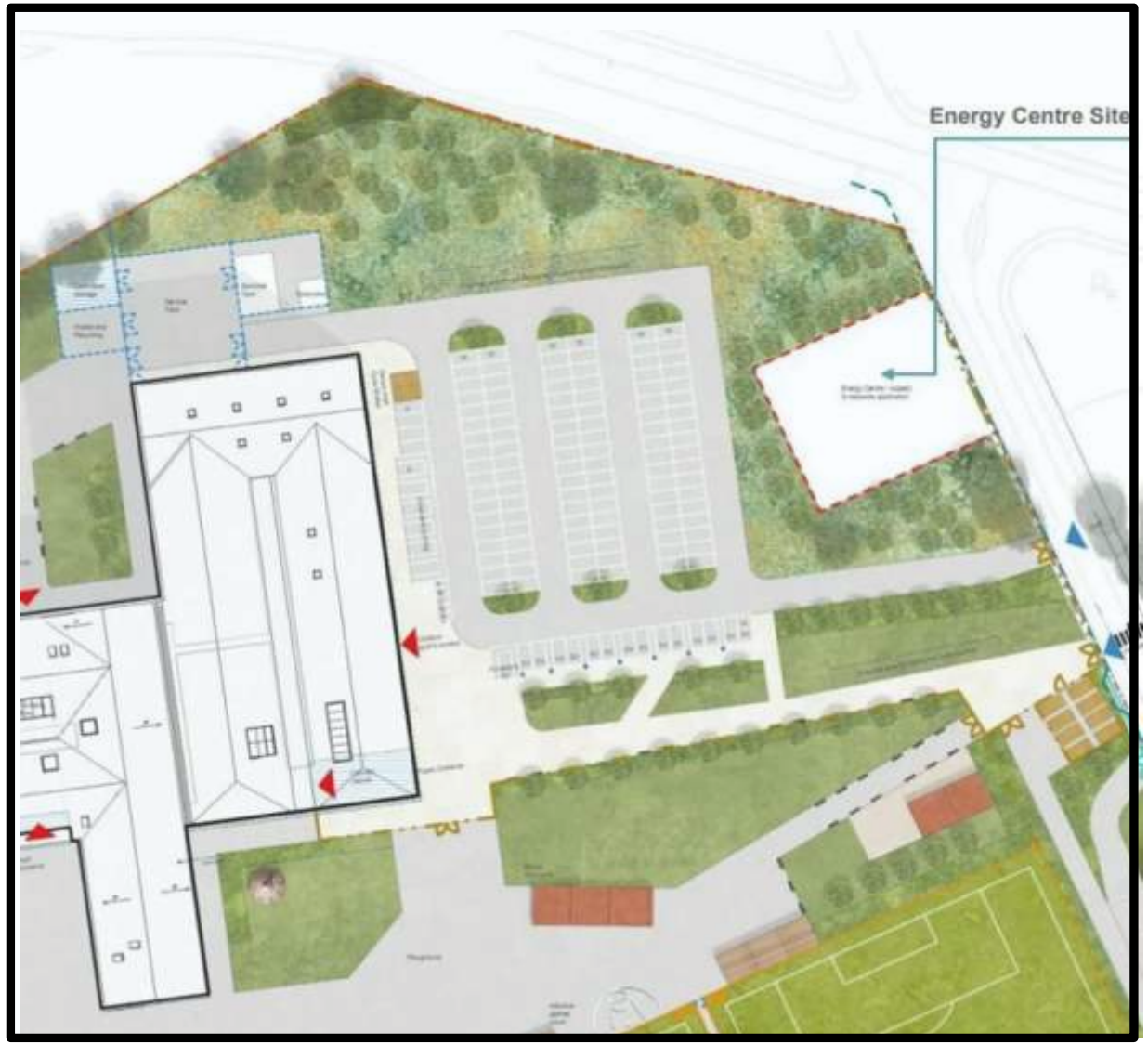
Connection costs

Ofgem Authorisation (including consumer and technical standards)

SHNF Case Study: Hazlehead Heat Network

Lead Organisation: Aberdeen City Council

Grant Awarded: £2,210,166

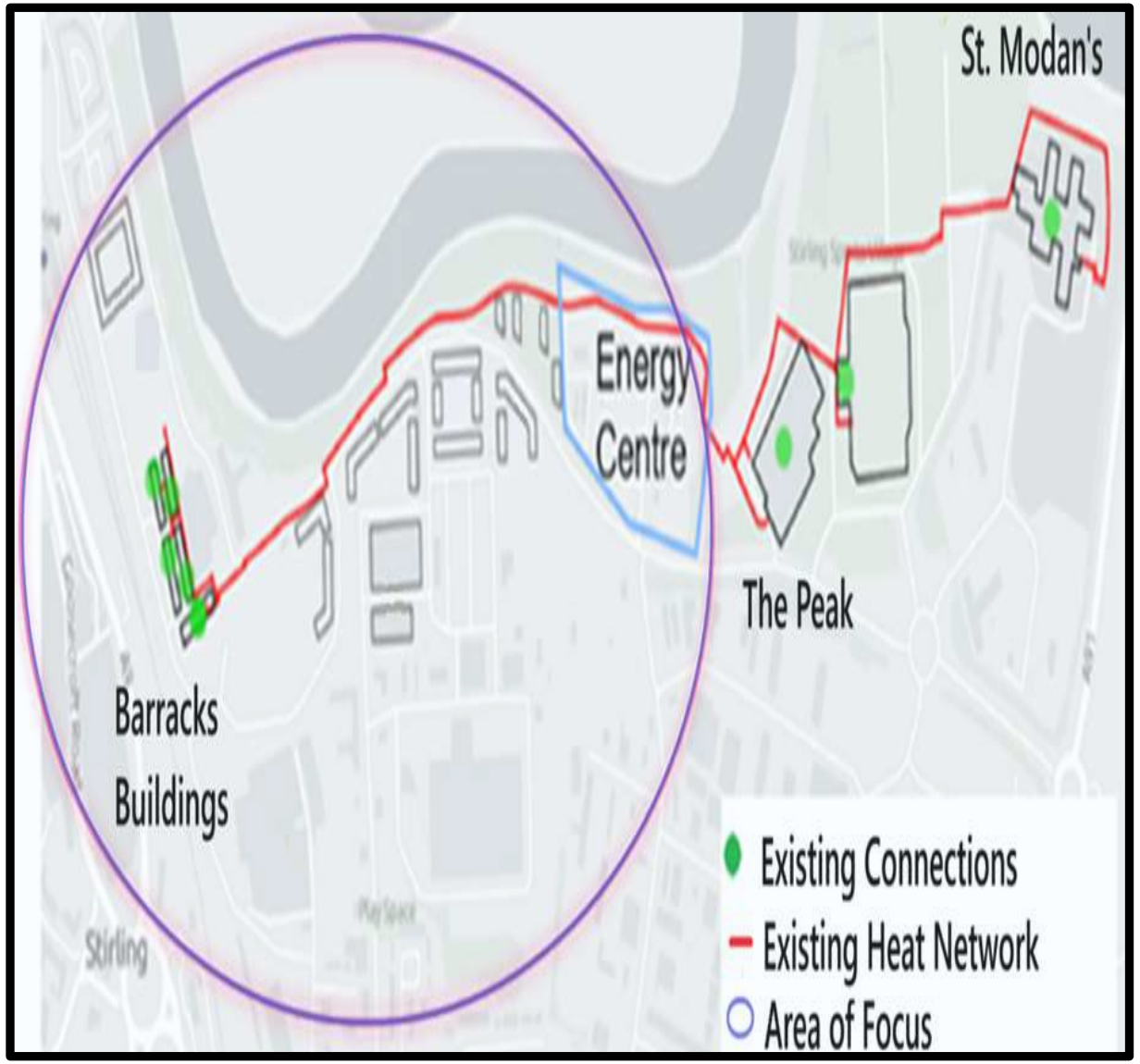


HNSU Case Study: Forthside Heat Network Expansion Feasibility Study

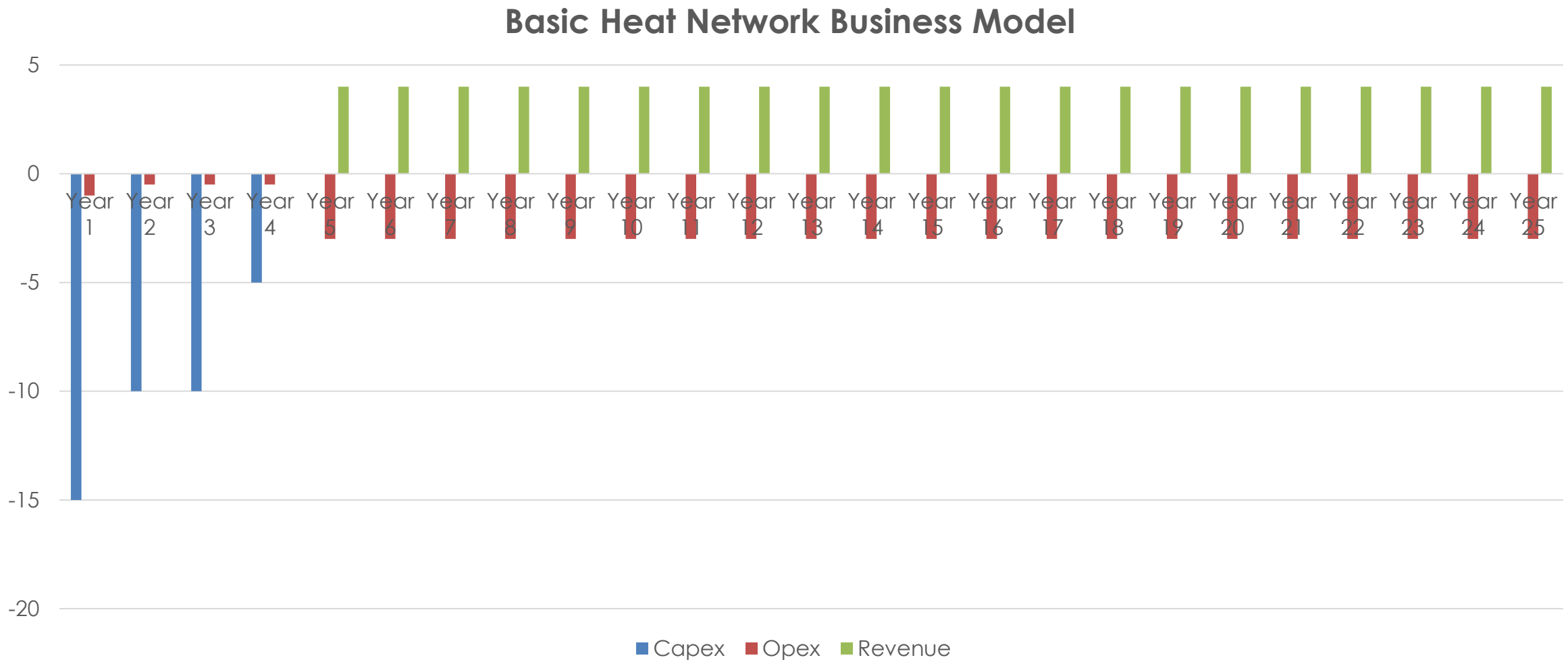
Lead Organisation: Stirling Council

Grant Awarded: £50,000

Project capex: £4m, IRR: 11% (with SHNF funding)



Planned Policies



Capex: SHNF, licensing

Opex: Cost of heat

Revenue: Connection regulations

Conclusion

- Heat networks are a necessity
- Scotland's potential to install them is high
- Underlying commercials inhibit investment
- Scottish Government proposals to de-risk projects (e.g. utility rights and demand assurance)
- Ongoing commitment to capital and pre-capital support



Thank you

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