

Five steps to attracting capital for heat networks



Heat networks: how to create the investment opportunity

Increasing heat network provision to meet 2050 net-zero carbon emission goals will require up to £6 billion of private sector capital, but the sector is not reaching its potential with investors due to uncertain market demand and absence of regulation.

Baringa outlines five steps that will unlock the investment required to scale heat network infrastructure and supply.

Decarbonising heat is key to the UK's ambitions of reaching net zero carbon emissions by 2050. Increasing supply from low carbon heat networks will be essential to reducing emissions from heating.

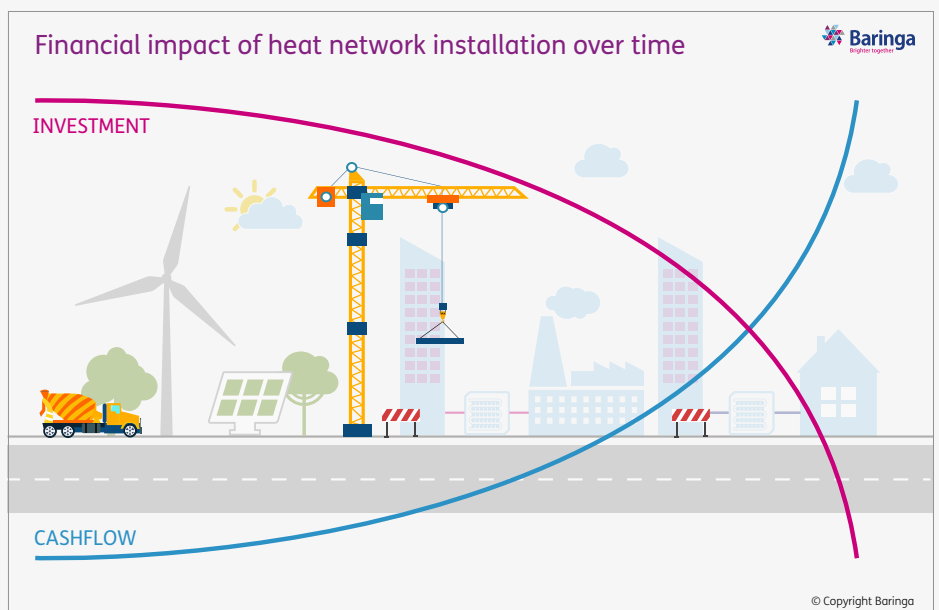
Expanding low-carbon heat-network supply from current levels of 3% to the required 18% by 2050 will require up to £6 billion of private sector investment, but at present the sector is widely considered to be a challenging investment proposition.

Heat networks require large upfront capital expenditure, long asset lifetimes

and low initial returns (see illustration). These characteristics match the requirements of long-term pools of capital seeking yield, but investors are holding back as the sector is unregulated and there is limited visibility on customer uptake and demand.

However, in theory at least, infrastructure funds, pension funds and high street banks have significant appetite for assets that use low carbon technologies and are ready to be convinced by the heat network investment case if a basic package of reforms were put in place.

Heat networks have large upfront capital expenditure and low initial returns. They require long-term investors.





Baringa has identified five steps that, if implemented, could unlock private sector capital and accelerate much-needed private sector investment into low carbon heat network infrastructure.



Step 1: Technology subsidy

Government financial support is required to ‘crowd in’ private sector capital. It is essential for improving the return profile for private sector investors and sharing the risk of the initial large capital outlay.

The government has previously implemented policies to support heat network development, such as the Heat Networks Delivery Unit (HNDU) and Heat Networks Investment Project (HNIP). But these policies have either closed, or are due to close, in the immediate term.

Plans for the Green Heat Network Fund, which will replace HNIP, and focus on financially supporting green networks (either new or retrofit) have been announced and will aim to align with investors’ sustainability requirements and goals.

The government will need to increase this support to heat network technology to ensure that the scale of investment required is achieved, either financially or through more targeted policies.



Step 2: Heat network regulation

The heat network market is currently unregulated, which can deter customers from switching to heat networks as there are no statutory protections for quality of service or pricing. This compromises demand visibility for developers and operators, who also value a market where there is clarity on technical and service specifications.

Regulation will outline minimum standards across the market, which will foster confidence in heat network technology and improve the reputation of the technology among consumers.



Step 3: Standardised contracting

As with regulation, standardised contracting will outline minimum standards in the market that developers and operators can plan to, and that customers can trust.

Standardised contracting unlocks economies of scale as the specification of minimum standards allows for repeatability. New projects can be rolled out faster and at lower cost, without the need to set out terms from scratch for each individual heat network project. This is crucial for fund

and institutional investors who are eager to invest in low carbon assets but have minimum cheque sizes and need to see the scope to deploy capital at scale to justify investment.

Contract standardisation supports the development of heat network technology as a credible asset class that has the scale to absorb capital at the required volume to be a viable option for investors.



Step 4: Certainty of connection

Demand risk is one of the biggest roadblocks to private sector investment. Potential heat network developers have limited visibility on how and when buildings will be connected to a heat network, and how much heat they will use.

The risk of heat network assets being left stranded before fully depreciated, in the event of land use change or customers choosing to disconnect, is a major deterrent to taking on upfront investment risk and long-lead times.

Insuring certainty of connection will reduce the risk profile for investors. This could be facilitated by guaranteeing that public sector buildings will anchor heat network developments, providing a guaranteed base load to incentivise investment. Other options include incentivising or even mandating connection to heat network assets.



Step 5: Implement zoning

The implementation of planning and zoning regulations provides a pathway for mitigating demand risk.

Zoning involves local and municipal authorities identifying locations for heat network development and then using planning rules to ensure that all new buildings in a zone connect to that network.

Zoning policies have been used to support heat network development and investment in the UK and internationally and have proven effective. Bristol Council, for example, has set up a “Heat Priority Area” and used planning requirements to enable connection to heat networks. Property developers in the Heat Priority Area have to include heat network infrastructure in projects and connect to existing networks when feasible.

Zoning can also help identify areas where heat network installation would be particularly impactful. Areas around hospitals and data centres, which produce large volumes of excess heat, are examples of high potential locations for development.

Zoning gives investors confidence that heat network technology is the right asset for the right area and will be utilised.



Conclusion

District heating will play a key role in the delivery of net zero carbon emissions by 2050 and there is strong Government intent and support for district heating rollout. For investors district heating networks offer the promise of long-term yields and dovetail with increasing institutional appetite for low carbon assets.

Addressing the five areas we have outlined will help to unlock district heating's undoubted potential to develop into a compelling green asset class for investors, securing the capital to rollout heat network infrastructure at the scale needed to meet net zero commitments.

We look forward to seeing the publication of the eagerly awaited Heat and Building Strategy and forthcoming consultation on heat network zoning.

Our hope is that these cornerstone documents will address some of the key points we have highlighted.



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