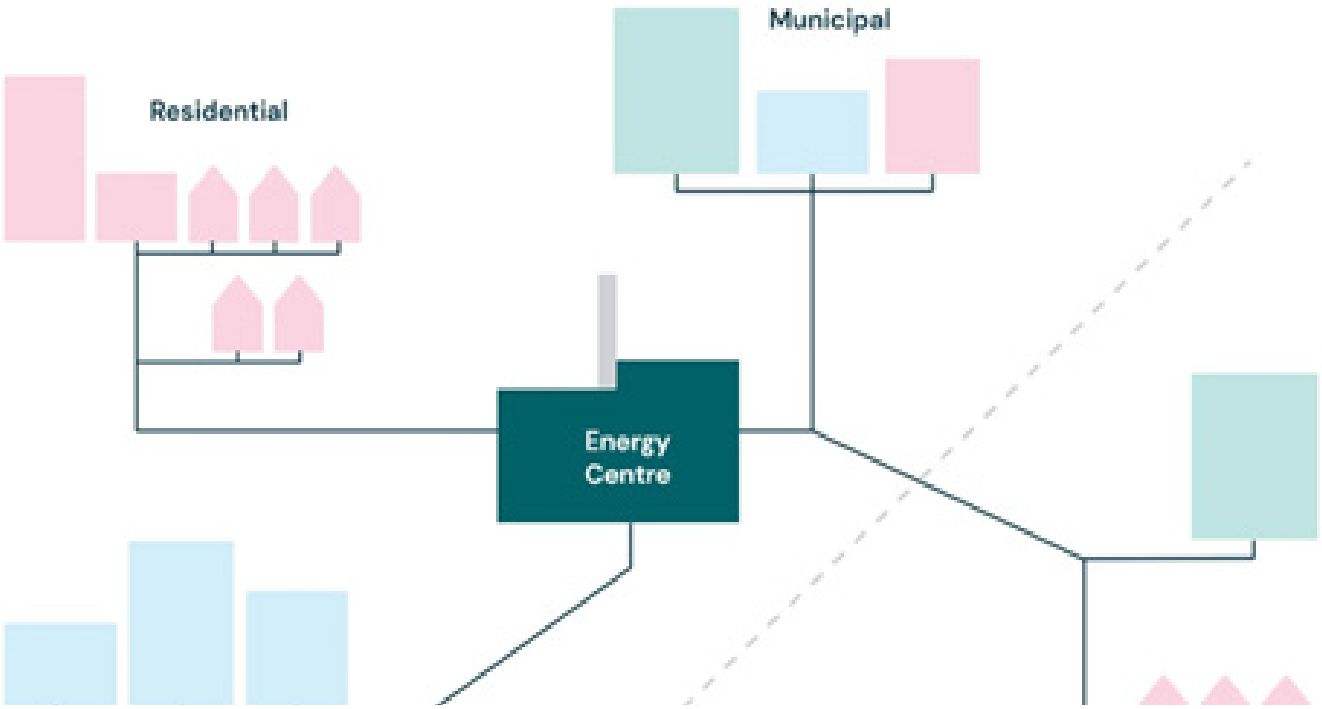
FREETHS

Heat network - back to basics

Heat networks are a key part of the UK Government's strategy for decarbonising heat consumption and ending our reliance on gas. They come in a range of types and sizes, from single buildings to city-wide schemes, and in the right setting can be the most efficient and cost-effective solution.

What is a heat network?



A heat network is a system that uses one or more central sources ('energy centres') to generate hot water, which is then pumped through underground pipes to provide space heating and hot water to homes and businesses in place of conventional boilers. Often heat is supplied alongside cooling and private wire electricity.

They are a common feature of new build residential and mixed-use developments, city regeneration schemes, commercial premises, university campuses and industrial parks.

Capturing and supplying waste heat from sources such as incinerators or data centres can also create revenue opportunities as well as improving sustainability credentials.

Boosted by government funding, first-time regulation and designated heat zones within which connections will be mandatory, the UK market is rapidly growing and attracting private investment.

Heat generating technologies

The most appropriate technology can depend on the customer demand profile, density of the buildings to be supplied, the ground conditions and the proximity of the site to a waste heat source. Larger schemes can utilise more than one type of generating plant along the network.

- **Gas** - the vast majority of the UK's legacy heat networks are gas-fired high-temperature systems and can often be used to generate both heat and electricity, known as "combined heat and power" or "CHP". They are no longer considered low-carbon and new installations will not meet planning or building regulation standards. Over time, existing systems will be phased out for lower-carbon solutions.
- **Heat pumps** – these run on electricity. They take ambient heat from the air, water or ground and can boost and/or reduce the temperature to provide heat and/or cooling. They can also boost the temperature of waste heat from sources such as industry and data centres. Large-scale heat pumps are the most widely used alternative to gas-fired CHP and smaller-scale ground source schemes are ideal for low density housing.
- **Waste heat recovery** – many commercial and industrial process create heat as a by-product, which can be harnessed and either re-used by the owner or sold to third parties, perhaps neighbouring developments. Energy from waste plants and data centres are common sources.
- **Geothermal** – heat can be taken from the ground at temperatures ranging from 10°C to 40°C degrees, depending on the depth of the borehole. Former coal and tin mines provide ideal extraction infrastructure.

Property rights

All heat networks run through land or buildings and so operators will have to ensure that they have sufficient access rights. Short-term service operators should be granted a simple access licence, whereas energy services companies (**ESCOs**) taking long-term operational risk will expect a lease of the generating plant and a lease or easements over the network.

It is imperative that landowners accommodate the grant such rights in their development strategies and disposal plans.

The recharging of heat to customers also needs to interface with the service charge regimes in occupier leases and tenancy agreements. Where heat is charged via a domestic lease, the terms also need to comply with new regulation.

Regulation

First-time regulation of the heat networks sector was introduced on 27 January 2026. It was imposed to address consumer protection challenges which arise because networks are natural monopolies for long periods that don't allow customers to switch supplier.

Existing networks are automatically authorised and so can continue operating and supplying, but will have to register with the regulator, Ofgem, by 26th January 2027. With an overarching objective of customer fairness, regulation will apply to both existing and future schemes, and will tackle:

- **Network operators and heat suppliers** will have to be authorised by Ofgem and comply with the regulatory standards set out in Authorisation Conditions.
- **Consumer protection** will be mainly focused on domestic and small/microbusiness commercial customers, with fewer standards applying to self-supply schemes and industrial customers.
- **Price protection** will not introduce price caps at this stage but will ensure fair, transparent pricing which is not disproportionately expensive, with pricing guidance for suppliers.

Technical standards

Over the course of 2026, Government will continue to consult on minimum technical standards for existing and new build heat networks under the Heat Network Technical Assurance Scheme (HNTAS). When introduced, these regulations will govern technical requirements for the design, installation and operation phases with compliance assessed and certified.

Zoning

In order to create customer demand and boost investor confidence, heat zones are being established and will be integrated into development planning

requirements. Regulation will be introduced over the coming year.

Zones will be geographical areas that have been identified as suitable for a heat network to provide the lowest cost and lowest carbon solution, and within which it will be mandatory for residential and commercial buildings to connect to a heat network.

An advanced zoning programme (AZP) has already been established to test and inform live zoning policy development.

Experienced Freeths team

Heat networks can be complex projects and involve multiple stakeholders. Our specialist heat networks lawyers have extensive experience of advising on over 50 projects and our clients include property developers, landlords energy service companies (ESCOs), local authorities, commercial property owners and industrial businesses.

Please reach out to the heat networks team below if you have any queries. Further commentary on the heat network regulations can be found here.

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