Heat networks: the energy crisis and upcoming regulations

Briefing for housing associations

9 September 2022

Summary

This briefing examines what it means to be running a heat network, setting out the current and future regulations and what housing associations need to know to comply. It also sets out the National Housing Federation’s position on how the energy price cap financially affects housing associations and their residents and sets out short and long measures to address the impact of the fuel crisis.

What is a heat network?
Heat networks, sometimes referred to as ‘district’ or ‘communal’ heating, are a way of heating blocks of flats or groups of homes. Heat networks vary in size, and they can serve as few as two homes, all the way through to entire housing estates. They are particularly attractive in high-density built-up areas and can deliver cost effective, low carbon heat. In social housing, they are often used in supported and sheltered housing with shared facilities, as well as in blocks of flats. If you are procuring energy commercially, and distributing this to residents via a central boiler, then you are running a heat network.

Heat networks work by distributing energy that is generated in a central location by a larger boiler to individual homes through a series of insulated pipes. There are many possible technologies that can provide the input to a heat network including power stations, energy from waste (EfW) facilities, industrial processes, biomass and biogas fuelled boilers and Combined Heat and Power (CHP) plants, gas-fired CHP units, fuel cells, heat pumps, geothermal sources, electric boilers and solar thermal arrays. There are two types of heat network:

- A district heat network: two or more buildings share a heat source with at least two-end users.
- A communal heat network: a single building with two or more end users sharing the heat source.

There are over 14,000 heat networks in the UK, serving around 500,000 households. Based on the English Housing Survey, we estimate that approximately 150,000 housing association residents in England have their heating and hot water delivered to their home via heat networks.

**The future of heat networks**

Heat networks can reduce the greenhouse gas emissions of heating and the costs of heating for end users. The government is exploring ways to expand the use of heat networks in the future and shift them away from using fossil fuels to help the UK achieve its target of net zero carbon emissions by 2050.

**Current regulations**

**Heat Network (Metering and Billing) Regulations**

In 2014, BEIS published the Heat Network (Metering and Billing) Regulations (HNMBR) as part of the UK’s response to the EU Energy Efficiency Directive. The
regulations aim to drive energy efficiency and transparency within heat networks to ensure that customers can monitor their energy usage and are provided with competitively priced energy. If you charge any of your residents for the supply of heating, cooling or hot water through a district or communal heat network, you will need to comply with these regulations.

**Requirements**

**Part 1 – Notification Requirements**
Heat network operators are required to complete a notification of data from all qualifying heat networks to BEIS.

A heat network qualifies if: it provides a shared source of heat for multiple users; the heat transfer medium is water, steam or chilled liquids; the heat is used for heating, cooling hot water or processes; the heat is sold to final customers by heat suppliers.

The deadline for part one of the regulations was 31 December 2015, and the process must be repeated every four years from the data of the original submission.

**Part 2 – Viability Assessment Requirements**
The second part of the HNMBR came into effect in 2020 and requires heat networks operators to determine if they must install heat meters or heat cost allocators into their buildings.

To define which networks will be required to install, BEIS has introduced three building classes:

- Viable: those who must install heat meters
- Open: those who must complete a viability exercise to determine if they are required to install meters or heat cost allocators
- Exempt: no action required

If buildings fall into the open class, the operators are required to complete a tool to assess whether it is cost-effective to install heat metering devices. The deadline to determine building classes and to complete the cost-effectiveness tool was the 27th November 2021 and the deadline for installation of heat devices is 1st September 2022.

The government have published further guidance on how to comply.

**Future regulations**
Unlike gas and electricity markets, heat networks do not currently have an official regulator. This means that while the supply of gas to a heat network is regulated, the supply of heat from the network to homes is not. Most heat network customers are not protected by the energy price cap since the supply of gas to heat networks is commonly classed as ‘non-domestic’. Although on average heat networks deliver a comparable service to individual heating systems, some consumers receive significantly worse outcomes, such as high prices and frequent outages. Regulation of heat networks will help to ensure consumers get a fair price and reliable supply of heat and will facilitate market growth.


The Bill introduces a regulatory framework for heat networks and powers to enable heat network zoning in England. The measures will work together to reduce the cost of living for heat network customers by regulating prices and ensuring the sector can contribute to delivering net zero in the most cost-effective way.

The proposals would create a statutory regulator for the heat network sector, proposed to be Ofgem, and focus on three core areas:

- Transparency of the heat network service, including before first joining the network.
- Fair and accurate pricing.
- Quality of service - for example expectations on outage management and customer complaints handling.

Under the new regulations, heat network operators would need to notify the regulator of their intention to supply heat or operate a heat network in order to get authorisation. All heat networks will need to meet minimum technical standards and decarbonisation rules, which will form part of the conditions for continued authorisation. Ofgem will monitor compliance and will be given powers under the Bill to take enforcement action where heat networks are not meeting the required standards. Ofgem will also have powers to investigate and intervene to ensure consumer prices are in line with heat networks with similar characteristics, or with the prices of alternative and comparable heating systems. The BEIS Secretary of State will have powers to introduce price regulation, including a price cap.

The government has published further [guidance on the Energy Security Bill and upcoming heat networks regulation.](#)

**Energy bills and heat networks**
The energy price cap (also known as the Default Tariff Cap) sets a price limit on units of gas and electricity provided through default tariffs for domestic supplies of electricity and gas. It is not an overall cap on the bill, the more energy you use the more you will pay.

As the supply of gas to heat networks is commonly classed as “non-domestic”, most heat network customers are not protected by the energy price cap. Historically the price to heat network customers of heating and hot water has been lower than standard domestic energy bills as operators purchase gas via large-scale commercial transactions. Since the energy crisis started, heat network operators have reported gas price increases of up to 700%. Heat networks are in particular trouble where their gas contracts have come up for renewal since the energy crisis started.

Housing associations traditionally have operated heat networks on very tight margins and so are faced with a difficult choice between absorbing losses and passing on costs to tenants and leaseholders. In addition, there will be thousands of social housing residents reliant on commercial heat networks that the housing association cannot control.

In September, the government announced their plan to tackle soaring energy bills. This included a two year energy price guarantee for domestic households and equivalent support for businesses. The government confirmed that the 400,000 households on heat networks across England will receive equivalent support through a dedicated fund.

Help for tenants and leaseholders

Existing support

All heat network customers will receive at least £400 to help with rising energy costs and additional support is available to the most vulnerable customers:

- **Energy Bills Support Scheme** (£400 per household).
- **Cost of Living Payment: means tested benefits** (£650 per person where eligible).
- **Pensioner Cost of Living Payment** (£300 per person where eligible).
- **Disability Cost of Living Payment** (£150).
- **The Household Support Fund** (discretionary Local Authority funding).
• **Council Tax rebate** (£150 per household in council tax bands A-D).
• **The Warm Homes Discount scheme** (£150 per household where eligible).

**What else is needed?**

**Immediate support**
After campaigning from the NHF and others, the government confirmed that heat network customers who do not have a domestic electricity contract will receive the **£400 energy rebate**. We now need urgent confirmation of how this rebate will be distributed to these customers who do not have a direct relationship with an electricity supplier. We are also calling for urgent government action to confirm the detail of the support for heat network customers. We are keen to work closely with government to determine the detail of the support scheme for customers who are not protected by the energy price cap to ensure that these customers receive the same protection as those on domestic gas supplies.

**Longer term**
Although our priority is the immediate financial pressures facing residents and our members; insulating and retrofitting our homes will be vital to keeping bills lower and improving the UK’s energy independence in the next few years. We are delighted that 90 housing associations have successfully received Wave 1 funding under the Social Housing Decarbonisation Fund (SHDF) and we welcome the **£800 million of funding committed to Wave 2**. Releasing the remainder of the full £3.8 billion up to 2030, and allowing organisations to bid for larger, longer term projects upfront would provide additional certainty and capacity across the retrofit sector and allow us to do more at a faster and more efficient rate.

We would also encourage the following:

- Bring forward new funding from the Heat Network Efficiency Scheme as a matter of urgency, to improve the heat loss efficiency of existing heat networks, which would bring down running costs and bills.
- Accelerate the rollout of decarbonisation funding like the SHDF and target insulation interventions at those blocks on heat networks to bring down bills.
- Provide support for smaller heat network operators with expert advice on procuring cheaper gas and encouraging inclusion in larger procurement consortia.
- Bring forward Ofgem regulation as quickly as possible.
What can housing associations do?

- Contact your MP with evidence of the impact on residents and your organisation.
- Share concerns with local councils – local authority landlords are experiencing the same issues as housing associations and local authorities also run some district heating schemes used for leisure centres etc.
- Share your story and evidence with the NHF, especially on the impact of price increases on residents.

Contact

Natalie Turner, Policy Officer, natalie.turner@housing.org.uk

Other organisations and further information

- Association of Decentralised Energy and the UK District Energy Association each represent a variety of heat network operators in the country including some of our members like Clarion, Newport City Homes, Guinness and L&Q.

- Citizens Advice represent energy consumers and offer independent advice on debt and fuel bills.

- The Heat Trust acts as a government-endorsed Code of Standards that heat network providers sign up to and commit to improve the experience of consumers, but it does not regulate pricing.

- The Heat Network brings together social housing landlords that manage heat networks.