



Department for
Energy Security
& Net Zero

ofgem

Heat networks regulation – consumer protection

Informing secondary legislation and
authorisation conditions

Closing date: 27 October 2023

4 August 2023



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Foreword from Lord Callanan

Heat networks will play a crucial role in boosting the UK's energy security and independence, decarbonising heat in buildings, and reducing the cost of living. In high density urban areas, they are often the lowest cost, low carbon heating option. This is because they offer a communal solution that can provide heat to a range of homes and businesses by capturing or generating heat locally. They are also compatible with any heat source and are uniquely able to unlock otherwise inaccessible large-scale renewable and recovered heat sources, such as large rivers, geothermal and industrial heat.

It is therefore a government priority to take steps to grow and decarbonise the heat network sector, both through providing heat network consumers with certainty of the standards they can expect, and through increasing investor confidence to funnel capital towards large-scale, low carbon heat networks.

Regulation is key to both aims. Through a regulatory framework, heat networks will be mandated to provide consumers with a fair price and reliable supply of heat and hot water. Combined with their potential for low cost, low carbon heating, this will help boost heat networks' appeal. A regulated sector where standards are harmonised and where heat network developers can benefit from rights and powers to build quickly and cost-effectively will also make it a more attractive proposition for investors and asset managers.

This consultation focuses on the consumer protection measures that will be introduced as part of the regulatory framework. Protecting consumers is the primary reason that government is regulating the sector. We recognise that energy cost increases caused by Russia's invasion of Ukraine and Putin's weaponisation of gas supplies have raised energy prices, including for heat network consumers. The government has acted decisively to provide immediate support, firstly through the Energy Bill Relief Scheme and now through the Energy Bills Discount Scheme. The Energy Bill Discount Scheme aims to ensure that domestic consumers on heat networks do not face disproportionately higher heat and hot water bills when compared to consumers in equivalent households who are supported by the Energy Price Guarantee.

Longer term, regulation will protect heat network consumers from unfair prices. We introduced the Energy Bill to Parliament last year. This will appoint Ofgem as heat networks regulator and provide it with powers to take compliance and enforcement action to ensure the sector complies with consumer protection measures. The government is funding Ofgem to support its preparatory activity before it begins operating as regulator, and my department is working closely with Ofgem to design and implement the regulatory framework. This consultation is therefore a joint endeavour between the Department for Energy Security and Net Zero and Ofgem, an approach which enables us to cover both policy and delivery considerations throughout this document.

Foreword from Jonathan Brearley

The key lesson we must take from the energy crisis is the urgent need to shift towards home-grown, cheaper, cleaner, and more secure forms of energy. This will help to reduce costs to consumers by breaking the link between electricity and gas prices, improve the security of supplies of energy and achieve energy independence, and help deliver the government's ambitious goals for net zero by 2050.

By providing the lowest cost and lower carbon heating solutions in many situations, heat networks will play a key role in delivering this agenda. Local heat sources already serve 500,000 customers across 14,000 networks. Their future role is set to expand significantly, with the Climate Change Committee predicting that around a fifth of heat will be distributed through heat networks by 2050.

Following the Competition and Markets Authority's study and recommendation to government in 2018, the government introduced the Energy Bill to Parliament, which will make Ofgem the regulator in Great Britain and licensing authority for Scotland for heat networks. The CMA found that, compared with gas or electricity heating consumers, heat network consumers were broadly equally satisfied with their systems. But it also found that some consumers faced worse outcomes, such as higher bills and low network reliability due to network design and build and a lack of transparency in billing.

So as the importance of heat networks grows, it is necessary that regulation is developed to promote positive outcomes for current and future heat network consumers. This consultation is aimed at seeking views on how Ofgem can most effectively address these issues.

In particular it seeks to consider how we can best regulate heat networks in terms of fair pricing, quality of service, information transparency and more broadly how we apply, monitor and enforce these new regulations in line with our principal duty to protect the interests of existing and future energy consumers. Most importantly, we need to consider how we can best protect consumers in vulnerable circumstances, particularly in the unique circumstances of the heat networks sector, such as the inability to switch suppliers.

This consultation is the first in a series to help design a regulatory framework which provides transparency and stability to the heat network sector to help facilitate growth and promote the transition to net zero, while ensuring its consumers receive a fair price, fair treatment and a reliable supply of heat for their homes. We welcome engagement across all stakeholders and look forward to receiving your feedback.

Introduction

Heat networks will play a crucial role in decarbonising heat in buildings. They are also an important part of securing the UK's energy independence through local, low carbon heat sources and reducing the cost of living through efficient, affordable heating in densely populated areas. Our analysis shows that heat networks could provide about 20% of total heat by 2050. They currently provide about 3%.

The government therefore expects the sector to grow rapidly in the coming decades, and we are committed to facilitating that growth. We are unlocking private investment by introducing heat network zoning and giving developers rights and powers to build and expand networks quickly and cost effectively. This will provide investors with certainty on the scale, capital costs, and rates of return of new networks, which will be key for increasing investment into the sector. We are also supporting capital schemes through the Green Heat Network Fund, a £288 million capital grant fund that will support the commercialisation and construction of new low and zero carbon heat networks. Alongside creating the conditions for increased private investment in large-scale heat networks that can be built rapidly, we are introducing a regulatory framework to improve consumer outcomes and increase consumer confidence in heat networks as a technology that can provide fairly priced, reliable, and low carbon heating and cooling.

In 2018, the Competition and Markets Authority (CMA) recommended regulation of the sector in its heat networks market study.¹ The government committed to this in a 2020 public consultation, with the government response published in 2021 setting out our approach to regulation.² In July 2022 the government introduced the Energy Bill to Parliament. The Bill appoints Ofgem as heat networks regulator and provides for the introduction of an authorisation regime for heat networks supported by authorisation conditions. These conditions will include standards for fair prices and transparent information for consumers, a high quality of service, and minimum standards and carbon limits. The Bill also provides for the establishing of a licensing regime which will enable those building new heat networks or modifying existing ones to be given the same powers enjoyed by other utilities, such as the right to dig up roads. In addition, it provides for establishing step-in arrangements to protect consumers in the event their supplier goes out of business and to ensure their heat supply is maintained. Finally, it appoints Ofgem as Scottish licensing authority, and the Scottish Government will consult separately on its licensing regime under the Heat Networks (Scotland) Act 2021.

Protecting consumers is government's primary reason for regulating the sector and secondary legislation will enshrine this as Ofgem's principal objective as regulator. We therefore want protections to be the first element of new regulation, and so this joint consultation by the Department for Energy Security and Net Zero and Ofgem seeks views that will inform the development of consumer protection requirements in secondary legislation and authorisation conditions as a matter of priority. While the Energy Bill sets out the overarching powers and principles for regulation, the regulatory requirements will set the specific standards and duties with which the sector will need to comply. Ofgem, supported by the Energy Ombudsman, Citizens Advice, and Consumer Scotland, will conduct market monitoring and compliance work, and will have powers to take enforcement action against regulated entities that breach requirements.

¹ <https://www.gov.uk/cma-cases/heat-networks-market-study>

² <https://www.gov.uk/government/consultations/heat-networks-building-a-market-framework>

This consultation therefore seeks views on consumer protection requirements around pricing, quality of service, transparency of information, and consumers in vulnerable circumstances. It then seeks views on the scope of these rules and how we should phase them in. It also seeks views on Ofgem’s approach to implementing and enforcing regulation, including through guidance, market monitoring, compliance, and enforcement activity, as well as its approach to delivering the cost recovery regime, following the public consultation in 2021-22.³ This consultation document is accompanied by an Impact Assessment setting out the benefits and costs of introducing consumer protections and a license regime for rights and powers.

We will consult on zoning later this year, following a previous consultation in 2021, which the government responded to in 2022.⁴ We will also publish a consultation in early 2024 covering the other elements of heat networks regulation, specifically technical standards, carbon emissions limits, and step-in and safety net arrangements such as Supplier of Last Resort, Operator of Last Resort, and Special Administration Regime.

Table 1: Approach to consulting on the heat networks regulatory framework

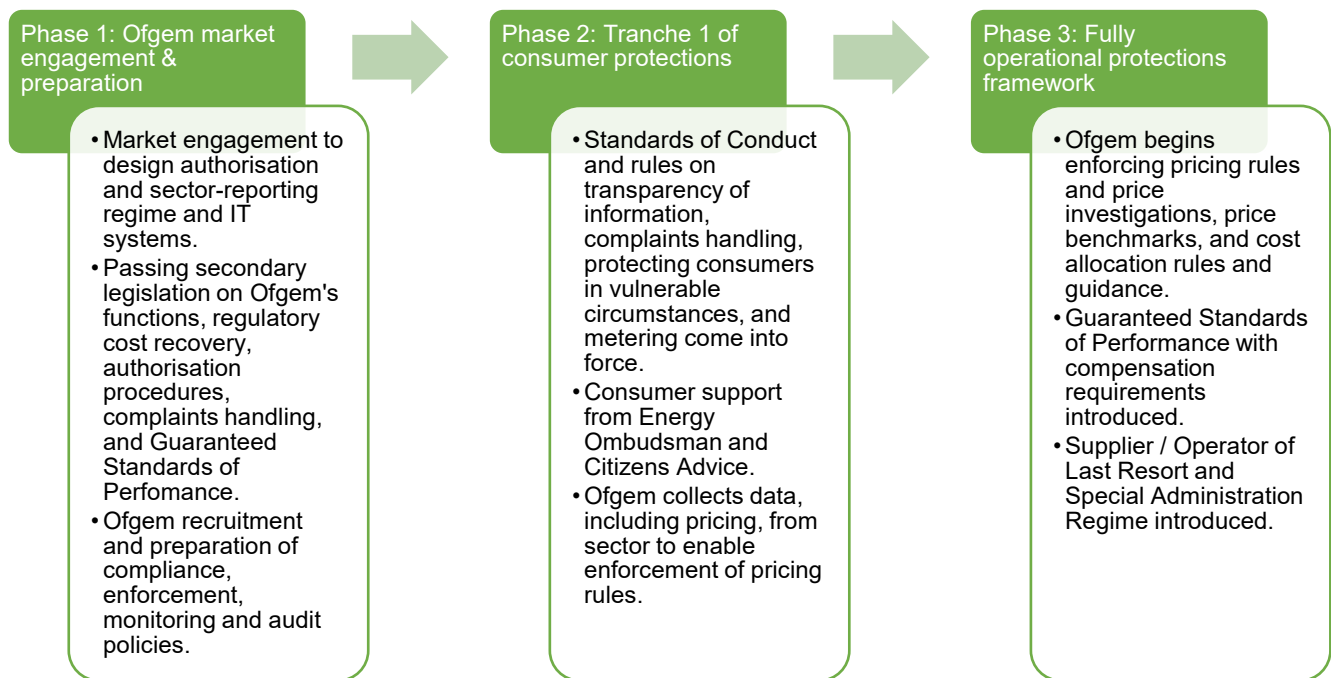
Policy area	Where and when are we consulting on this?
Consumer protection	This consultation.
Heat network zoning	Later this year.
Technical standards, carbon emissions limits and step-in arrangements	Second heat networks regulation consultation in early 2024.
Ofgem’s administering of the Scottish licensing regime	Ofgem-Scottish Government consultation (timing to be determined).

Consumer protections and Ofgem’s measures for enforcing them will be scaled up in three phases. The first phase in 2024 will involve Ofgem conducting market engagement and internal preparatory work, including development of digital systems, that will underpin its market monitoring, compliance, and enforcement activity (see ‘Compliance and enforcement’ section for further information). The second phase will see the initial tranche of consumer protection requirements enter into force in Spring 2025. Shortly after this, the third phase will see all other protections enter into force for a fully operational consumer protection framework (see Sequencing of consumer protection rules on page 77 for details of rules that will come into force at the second and third phases). The diagram below illustrates these phases and key milestones in each:

³ For more on the cost recovery consultation see here <https://www.gov.uk/government/consultations/recovering-the-costs-of-heat-networks-regulation>

⁴ See more on the previous zoning consultation here <https://www.gov.uk/government/consultations/proposals-for-heat-network-zoning>

Figure 1: Three phases of introducing the consumer protection framework



As illustrated above, at the start of the second phase, Ofgem will begin operating as regulator and administering the authorisation regime. This will involve all operational heat suppliers and heat network operators being automatically authorised to continue operating subject to them meeting notification requirements set by Ofgem (more details in Authorisation activities on page 19). We will phase in consumer protection requirements, with some coming into force within the first year of regulation (see Sequencing of consumer protection rules on page 77 for our proposals). Ofgem is engaging with the sector to design the digital infrastructure and processes that will allow suppliers and operators to engage with and where necessary apply to Ofgem for authorisation purposes. If you are a heat supplier or heat network operator and would like to engage with this process, you can contact Ofgem at heatnetworksregulation@ofgem.gov.uk.

We intend to introduce heat network zoning in England from 2025. Through powers relating to zoning in the Energy Bill, areas may be designated as 'heat network zones' where heat networks are expected to be the lowest cost solution for decarbonising heat. These powers also provide that certain buildings in zones may be required to connect to district heat networks within a specified timeframe.⁵ In light of this, as part of the zoning consultation which we intend to publish later this year, we will seek views on whether certain consumer protections should be extended to more types of consumers in zones, such as larger non-domestic consumers. However, we welcome views in this consultation on the suitability of our below proposals to heat network zones.

⁵ We have indicated that we are minded to require this of all new buildings, large public sector buildings, large non-domestic buildings and large residential buildings which already have communal heating, or are undergoing major refurbishment. This will be subject to further consultation as to how these buildings are defined. See: <https://www.gov.uk/government/consultations/proposals-for-heat-network-zoning>.

Devolution

Introducing heat networks regulation is reserved in Wales and devolved in Northern Ireland. Legislating for heat is devolved in Scotland, except for consumer protection regulation which is a reserved matter. This means that these rules will apply to Scottish domestic consumers alongside the regulatory regime established by the Heat Networks (Scotland) Act 2021. We have also agreed and are working with the Scottish Government to introduce GB-wide protections for microbusinesses and **SMEs** (small and medium sized enterprises) supplied by heat networks. Market-led step-in provisions will apply in Scotland insofar as they relate to protecting consumers from a loss of supply of heat caused by insolvency, authorisation revocation, or technical failures. We are working closely with the Scottish Government to map interactions between these provisions and transfer of assets arrangements provided by the Scottish regime. Consumer protection rules will be set and enforced via the GB-wide authorisation regime. Consumer advocacy is devolved in Scotland and Consumer Scotland will take on the role for Scottish consumers.

Pre-contractual transparency relates to consumer protection in that it ensures transparency of information, and so is broadly a reserved matter. However, Energy Performance Certificates and housing rules – two mechanisms for introducing pre-contractual transparency – are devolved in Scotland. The pre-contractual transparency section below sets out the proposed approach to these measures in Scotland insofar as it falls within the UK government's competence.

As well as taking on the role of heat networks regulator in Great Britain, Ofgem will be appointed Scottish licensing authority under the Heat Networks (Scotland) Act 2021. This will ensure regulatory coherence and cost savings across the two regimes and allow Ofgem to adopt a holistic approach to achieving its principal consumer protection objective alongside the Scottish Government's fuel poverty and decarbonisation targets.

Our zoning proposals, which will be consulted on later this year, will apply to England only. The Scottish Government introduced its own zoning arrangements on 30 May 2023 when the Network Zones and Building Assessment Reports (Scotland) Regulations 2023 came into force.

Contents

Foreword from Lord Callanan	3
Foreword from Jonathan Brearley	4
Introduction	5
Devolution	8
General information	11
Why we are consulting	11
Consultation details	11
How to respond	12
Confidentiality and data protection	13
The proposals	14
Consumer protection landscape	14
Document structure	14
Regulatory structure	15
Scope of the regulation and authorisation regime	19
Authorisation activities	19
What activity needs to be authorised?	19
What is a relevant Heat Network?	20
I'm a supplier and / or operator of a relevant Heat Network, what authorisation conditions will apply to me?	21
Regulating small networks	27
Approach to very small property conversions	29
The Initial Period	30
Authorisation of existing regulated activity during the initial period	30
Heat Network Failure	32
Approach to protecting consumers and regulating the sector	33
Overarching principles – Standards of Conduct	34
Fair pricing	36
Context	36
Scope	37
Outcomes	37
Interactions	37
Transparency	38
Overall approach	40
Cost Allocation	43

Comparison Methodology and Benchmarking _____	44
Pricing investigations and compliance _____	47
Price regulation _____	48
Quality of service and supply of heat _____	49
Complaints handling _____	49
Guaranteed standards of performance _____	50
Consumer redress and consumer advocacy _____	54
Market-led step-in arrangements: reducing the risk and impact of market failure and ensuring continuity of heat supply _____	54
Outcomes _____	55
Gas and Electricity Supply Licence Conditions _____	56
Market-led Step-in _____	57
Contractual step-in _____	57
Customer Supply Continuity Plans _____	59
Protections for consumers in vulnerable circumstances _____	60
Additional needs and priority services _____	60
Payment difficulty and disconnection _____	61
Payment methods _____	64
Pre-payment meters and use of powers of entry _____	64
Transparency of information to the consumer _____	66
Approach to metering _____	66
Transparency of information during residency _____	70
Transparency of information pre-property transaction _____	73
Protections for small-medium sized enterprises _____	76
Sequencing of consumer protection rules _____	77
Monitoring, audit, compliance, and enforcement _____	79
Monitoring and audit _____	80
Compliance and enforcement _____	82
Ofgem's administering of the cost recovery regime _____	83
Transition and payback period _____	84
Next steps _____	87
Consultation questions _____	88
Appendix 1 Fair Pricing - rules and guidance _____	94
Appendix 2: Transparency of information to the consumer proposals _____	100
Appendix 3: Proposed outcome-based smart meter specification _____	103
Appendix 4: Prepayment meter policy _____	105
Glossary _____	108

General information

Why we are consulting

This is a joint consultation by the Department for Energy Security and Net Zero and Ofgem seeking views on the consumer protection requirements that the heat network sector will need to comply with as part of the regulatory framework. We are also seeking views on Ofgem's approach to regulating the sector, including through guidance, market monitoring, compliance, and enforcement activity, as well as its approach to recovering the costs of regulating heat networks.

Consultation details

Issued: 4 August 2023

Respond by: 27 October 2023

Enquiries to:

Heat Networks Policy Unit
Department for Energy Security and Net Zero
2nd Floor, Area Abbey 1
1 Victoria Street
London
SW1H 0ET

Email: heatnetworks@energysecurity.gov.uk

Heat Networks Regulation Team
Ofgem
10 South Colonnade
Canary Wharf
London
E14 4PU

Email: heatnetworksregulation@ofgem.gov.uk

Consultation reference: Heat networks regulation – consumer protection

Audiences:

The consultation will be of interest to the heat networks industry and those with a broader interest in the decarbonisation of heat, including:

- consumer advocacy groups
- industry trade associations
- energy supply companies

- local authorities
- housing associations
- managing agents, property management companies, and developers
- landlords
- building owners
- heat network consumers

Territorial extent:

Great Britain

How to respond

Respond online at: <https://beisgovuk.citizenspace.com/heat/heat-networks-regulation-consumer-protection>

or

Email to: heatnetworks@energysecurity.gov.uk and heatnetworksregulation@ofgem.gov.uk

Write to:

Heat Networks Policy Unit
Department for Energy Security and Net Zero
2nd Floor, Area Abbey 1
1 Victoria Street
London
SW1H 0ET

Heat Networks Regulation Team
Ofgem
10 South Colonnade
Canary Wharf
London
E14 4PU

The consultation page for GOV.UK is below. Updates and supporting documents can be found there <https://www.gov.uk/government/consultations/heat-networks-regulation-consumer-protection>

This is a joint consultation, run by DESNZ and Ofgem. The Ofgem consultation page can be found here <https://www.ofgem.gov.uk/publications/consultation-heat-networks-regulation-consumer-protection>

Confidentiality and data protection

Information you provide in response to this consultation, including personal information, may be disclosed in accordance with UK legislation (the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004). Both the Department for Energy Security and Net Zero and Ofgem will receive your consultation response. We intend to share responses relevant to Scotland with the Scottish Government, and responses relevant to Northern Ireland with the Northern Ireland Executive, in accordance with UK legislation.

If you want the information that you provide to be treated as confidential please tell us, but be aware that we cannot guarantee confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not be regarded by us as a confidentiality request.

We will process your personal data in accordance with all applicable data protection laws. See our privacy policy.⁶

We will summarise all responses and publish this summary on GOV.UK.⁷ The summary will include a list of names or organisations that responded, but not people's personal names, addresses or other contact details.

Quality assurance

This consultation has been carried out in accordance with the government's consultation principles.⁸

If you have any complaints about the way this consultation has been conducted, please email: bru@energysecurity.gov.uk.

⁶ <https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/personal-information-charter>

⁷ <https://www.gov.uk/government/consultations/heat-networks-regulation-consumer-protection>

⁸ <https://www.gov.uk/government/publications/consultation-principles-guidance>

The proposals

Consumer protection landscape

In 2018, the **CMA** completed its market study into heat networks and concluded that “a *statutory framework should be set up that underpins the regulation of all heat networks.*” The government agreed with the CMA’s recommendations for heat networks regulation and in 2020 consulted on the market framework, with the government’s consultation response following in 2021.⁹

The principal objective of regulation is to protect heat network consumers, ensuring they receive a fair price, reliable supply of heat, and transparency of information. Consumer protection rules will therefore be the first element of the framework which the sector will need to comply with, which is why this consultation focuses on those rules. Since our consultation process in 2020-21, we have seen global increases in energy costs. This has had a significant impact on heat network consumers given an estimated 90% of UK heat networks are gas-fired. Government has acted quickly and decisively to provide consumers with support, including through the **EBRS** and its successor, the **EBDS**.¹⁰ The EBDS aims to ensure that domestic consumers on heat networks do not face disproportionately higher heat and hot water bills when compared to consumers in equivalent households who are supported by the Energy Price Guarantee.

Whilst the government has stepped in to reduce the overall price of energy for heat network consumers this consultation is about the longer term and more fundamental reforms necessary to provide consistently good standards, improve price transparency, and reduce the number of consumers paying relatively higher prices in the market. The Energy Bill, which is progressing through Parliament, appoints Ofgem as heat networks regulator and provides powers to introduce consumer protection rules via Statutory Instruments (SIs) and authorisation conditions. Whilst the 2020 consultation was higher level in seeking views on the key objectives and elements of the framework, this consultation provides more detail about what consumer protection measures we are proposing to introduce, and sets out how we would expect to implement these requirement in regulation and authorisation conditions. Views provided in response to this consultation will then inform the drafting of SIs and authorisation conditions, with draft versions of both to be publicly consulted on in 2024.

Document structure

We have sought to structure this consultation document in a way which makes it easy to navigate and which allows respondents to select which areas they would like to engage with most based on perceived importance. It opens with the approach that Ofgem will take to regulating the market, including which entities will be subject to regulation and how Ofgem will administer the authorisation regime. We then discuss overarching Standards of Conduct, which at their core require heat network operators and heat suppliers to treat their consumers fairly and allow for a great deal of flexibility in how this is operationalised by the sector. This is

⁹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1043640/heat-networks-market-framework-consultation-govt-response.pdf

¹⁰ EBRS: <https://www.gov.uk/guidance/energy-bill-relief-scheme-help-for-businesses-and-other-non-domestic-customers>; EBDS: <https://www.gov.uk/guidance/energy-bills-discount-scheme-heat-networks-support>

followed by an explanation of the other elements of the consumer protection framework, which will cover a mixture of prescriptive (minimum standard) and principle-based rules. These are split into ‘subtopics’ and arranged into the following themes:

- Fair pricing
- Quality of service and supply of heat
- Protections for consumers in vulnerable circumstances
- Transparency of information to consumers
- Cross-cutting issues, such as sequencing of regulation

For each subtopic, we have set out what we consider to be the desired outcomes of regulation to ensure our proposals focus on delivering those outcomes. We then provide proposals for principle and prescriptive-based regulation which we consider necessary for achieving these outcomes, with consultation questions at the bottom of each subtopic section to which you are invited to provide responses. Respondents do not need to respond to every consultation question, but we welcome as comprehensive a view from your organisation as you consider appropriate.

For some subtopics, we have included further detail on our proposals in four appendices, see page 94 onwards. This allows respondents to choose which topics to review in further detail before providing responses, with the aim of ensuring that respondents have a manageable amount of content to review. A glossary of terms and acronyms used in this document can be found on page 108.

In 2022 we conducted the Heat Network Consumer and Operator Survey to gain a refreshed insight into the consumer and operator experience in the sector.¹¹ These findings have helped inform our policy proposals in this consultation, and throughout we refer to findings from that survey to help provide context on issues and explain approaches.

Regulatory structure

Implementing the market framework will require close collaboration across government, regulators, consumer advocacy groups, and Ombudsman Services. A diagram outlining the proposed regulatory structure follows a summary of the proposed roles and responsibilities:

- **Ofgem** will be responsible for regulating the sector and monitoring networks’ compliance with the regulatory framework. This involves managing the authorisation regime, ensuring compliance with consumer protections, and managing audits, compliance, and enforcement activity where necessary.
- **Consumer Advocacy bodies (Citizens Advice in England and Wales, Consumer Scotland in Scotland)** will offer advisory and advocacy services for heat network consumers, ensuring consumer rights are upheld and detriments addressed. Moreover,

¹¹ The HNCOS survey results can be found here <https://www.gov.uk/government/publications/heat-network-consumer-and-operator-survey-2022>.

these bodies will work closely with Ofgem and Ombudsman Services, offering input into future heat network policy and regulatory development.

- **Ombudsman Services**, also known as the Energy Ombudsman, will provide a crucial check-and-balance function within this regulatory framework. It will handle complaints from consumers that have not been satisfactorily resolved through direct interaction with their heat network or via the advocacy bodies. Their role will include investigating complaints, making judgements, requiring redress where necessary, and reporting systemic issues to Ofgem. Where a heat network dispute concerns a tenant or leaseholder of a social landlord, is part of a wider housing issue, and is against the landlord, it will continue to be the Housing Ombudsman's responsibility to handle such complaints if not resolved between the tenant / leaseholder and landlord. As is the case for retail energy, the Energy and Housing Ombudsmen will work closely to ensure efficient and accurate cross-referring of cases.
- **The Office for Product Safety and Standards (OPSS)** will have responsibility for monitoring the accuracy of heat meters installed on heat networks. This may involve monitoring based on testing methodologies, and checks against agreed accuracy standards. By performing this role, OPSS will improve the accuracy and reliability of heat meters, helping to ensure consumers are billed accurately and transparently for the heat they use.
- A **code manager** will be established and will be responsible for delivering a framework of technical standards that will improve the performance and efficiency of heat networks. The code manager will also set requirements on assessors who will be responsible for ensuring standards are met across a network's design, operation, and maintenance lifecycle. Ofgem will be responsible for licensing and overseeing the performance of the code manager.

Formal communication mechanisms will be established among these entities to facilitate regular information sharing and intelligence reporting for market monitoring purposes. This will help to avoid any regulatory gaps or overlaps, and ensure a coordinated response is taken to future challenges in the heat network sector.

Recognising the valuable experience and insights accumulated by the **Heat Trust** over the years, we propose their continued involvement in the initial stages of regulatory go-live. The Heat Trust's established role in setting industry standards provides a strong foundation upon which the new regulation will build and their continued involvement will aid transition, ensuring continuity, and reducing risk of disruption for the sector and its consumers.

As the new regulatory structure matures, we will work with the Heat Trust to discuss its ongoing role with the aim of ensuring the most effective and efficient regulatory framework continues to develop.

Figure 2: Proposed regulatory structure

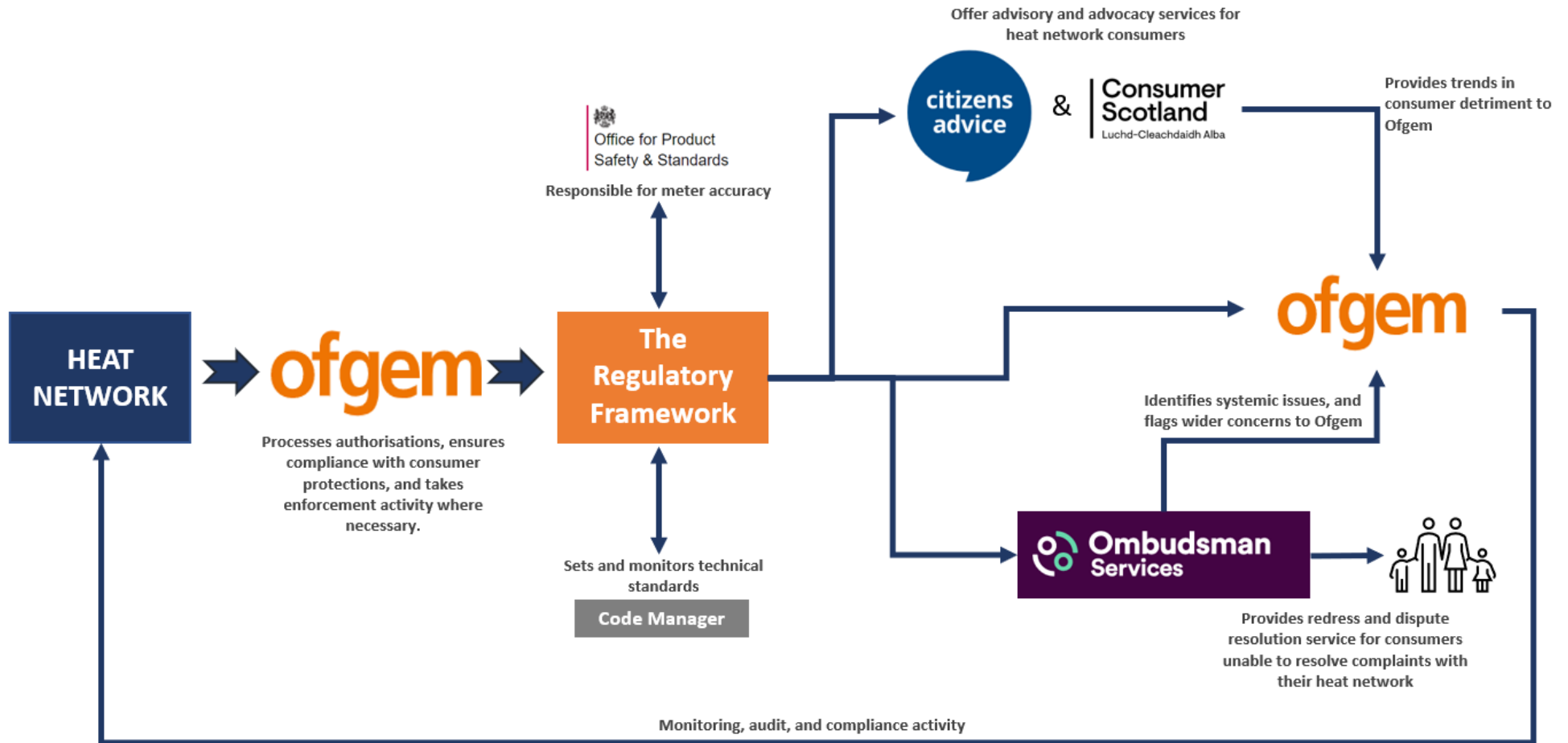
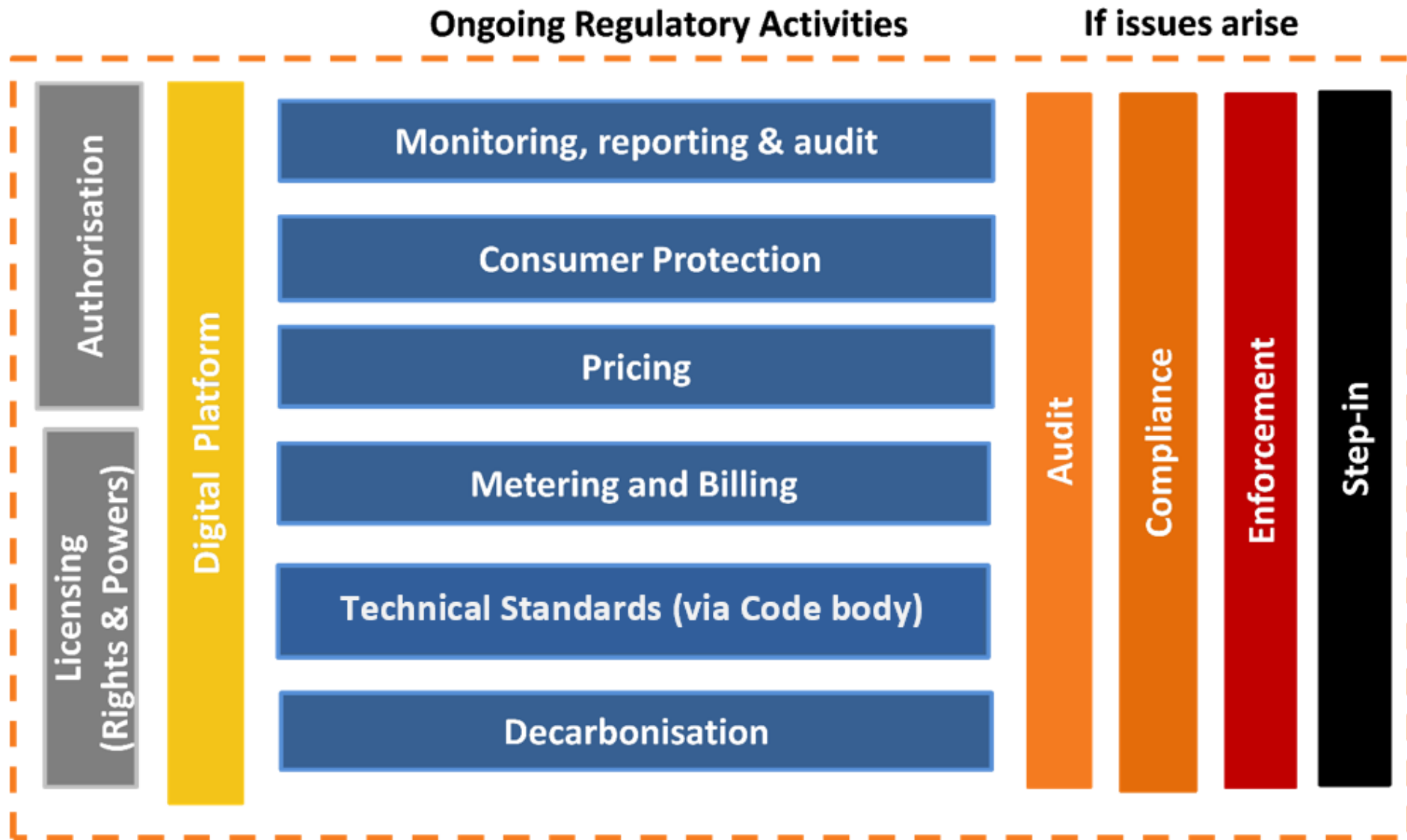


Figure 3: The building blocks of the regulatory structure



Scope of the regulation and authorisation regime

Authorisation activities

In line with the proposal set out in the 2020 consultation and 2021 government response, Ofgem will manage an authorisation regime for heat supply and operation of a heat network and a licence regime for rights and powers. The licence regime for rights and powers will be optional for heat network developers and allows them to apply for specific powers. This section provides further details on the proposed approach to authorisation, including scope and transitional aspects. Policy relating to the optional licence for rights and powers is not included within this consultation.

What activity needs to be authorised?

Two activities will fall within the scope of regulation, namely the operation of relevant heat networks (meaning district and communal heat networks) and the supply of heating, cooling or hot water to consumers through a relevant heat network. We have set out proposed definitions of operator and supplier below. The definition of a relevant heat network is given in a following section.

Heat network operator

This is the organisation that is responsible for the operation of the relevant heat network. Network operators are involved in and have responsibility for the day-to-day operation and maintenance of heat networks infrastructure and therefore have significant influence over the quality of service outcomes for consumers.

Their responsibility for operation and maintenance of heat network infrastructure extends to the generation plant, (for example the energy centre), the heat distribution network including pipework (both primary and secondary networks)¹², and connections such as heat exchangers and other supporting plant and equipment.

The network operator is most likely to be the asset owner or a party with a long-term concession agreement that has control over the asset for a period of time in an **ESCo** (Energy Service Company) model. Heat network operators may subcontract activities, for example for maintenance, but operators are responsible for outcomes. For most heat networks in operation, the heat network operator also has a direct relationship with consumers and is therefore also the heat supplier.

Heat network supplier

This is the organisation that is responsible for the supply of heating, cooling or hot water to end consumers through a communal (single building) or district (multi-building) heat network. Heat suppliers tend to have a direct contractual relationship with consumers for their heat supply, for example through a heat supply contract. This could also include the supply of heat as part of a package, paid for indirectly through rent, a service contract, or other means. Heat suppliers therefore have a significant influence on issues affecting consumers' heat provision including pricing and quality of service.

¹² Primary Heat Network: The distribution pipes that connect the energy centre to buildings – mostly buried pre-insulated pipe. Secondary systems – the pipes within the buildings, and up to each dwelling in residential blocks, even if no hydraulic break is installed. CIBSE/ADE Heat Networks: Code of Practice for the UK CP1 (2020)

Who is the supplier or operator of a relevant Heat Network?

The above definitions and descriptions of the heat network operator and heat supplier roles, together with the diverse nature and structure of heat networks in Great Britain, mean that in practice we expect a range of organisational types to be captured within these definitions. However, even though there are two regulated activities (operation and supply), we expect these will often be the responsibility of a single entity, in line with what we understand is current industry practice. Examples of organisations that we would expect to own, operate and maintain, or supply heat to end consumers include:

- Building owners / freeholders
- ESCos
- Local authorities
- Housing associations
- Developers (likely to be a temporary arrangement)

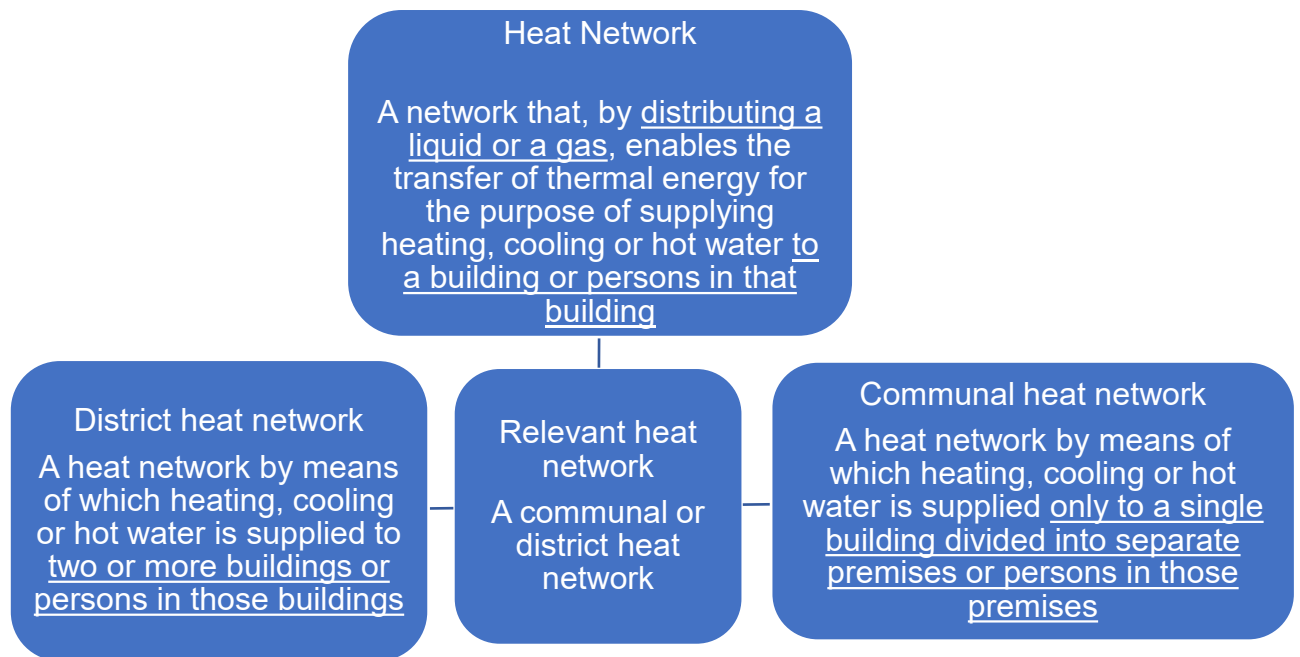
Taking this approach into consideration for the most common form of heat network, a communal network within a block of flats, the building owner would be responsible for the operation of the network and supply of heat to residents, unless this activity, including responsibility and control over the network, has been contracted out to a third party such as an ESCo.

To deliver effective regulation, there should be as few entities involved in regulated activities as possible. Ideally a one-to-one relationship between the regulator and responsible party for each heat network would exist and we are seeking to achieve this with our regulatory design. This places particular importance on the definition and boundaries of the two regulated entities (heat network operator and heat supplier) and how they interact in practice across the range of business models that exist across heat networks in Great Britain.

What is a relevant Heat Network?

‘Heat network’ is defined in the Energy Bill, but it is possible for you to be considered a heat network, but not fall into scope of Market Framework requirements. The key determining factor of whether you are considered a **relevant heat network**, and therefore within scope of the Market Framework and subject to regulation, is whether a network amounts to either a district heat network or a communal heat network as defined in the Bill. For example, your heat network might supply multiple separate buildings or premises, as explained by the figure below:

Figure 4: Definitions applicable to heat networks



Common examples of what would be considered a relevant heat network for the purpose of regulation would include, from a domestic consumer perspective, a single residential building with multiple final consumers in separate premises (for example a block of flats) or sheltered or social housing (where these are provided as separate homes with a networked heat supply). From a non-domestic perspective, examples could include commercial buildings with multiple sub-let spaces such as offices and shopping centres.

Where individual heat pumps are served by a shared ground loop the arrangement of heat pumps and ground loop taken together is also considered to be a heat network.

I'm a supplier and / or operator of a relevant Heat Network, what authorisation conditions will apply to me?

The table below provides examples of a range of relevant heat network types and how the regulatory framework would impact these. This is not an exhaustive list but aims to provide an understanding of the proposed scope of the framework to assist the sector in responding to this and subsequent consultations.

Monitoring data will be expected from all authorised entities and will be appropriate to assess compliance with the authorisation conditions applied to the relevant heat network's heat supplier/heat network operator and their authorisation.

Table 2: Regulatory framework breakdown

Network Type / Example	Consumer Protection									Comments
	Fair Pricing	Quality of service / Complaints	Market Led Step in (CSCPs & contractual step in)	Protections for vulnerable consumers	Transparency of information to consumers	Metering	Technical Standards	Decarbonisation	Authorisation, monitoring, audit, compliance	
District Network (domestic and/or microbusiness connections/end consumers.	X	X	X	X	X	X	X	X	X	See all sections of this consultation and also future consultation on Technical Standards
Communal Network (domestic and/or microbusiness end users)	X	X	X	X	X	X	X	X	X	See all sections of this consultation and also future consultation on Technical Standards
District Network (no domestic or microbusiness connections/end users)						X	X	X	X	Note relevant sections and also future consultation on Technical Standards
Communal Network (no domestic or microbusiness end users)						X	X	X	X	Note relevant sections and also future consultation on Technical Standards
Communal or District Network where use of network is purely industrial								X	X	Note relevant sections and also future consultation on Decarbonisation

I'm a Heat Network customer, what protections will I benefit from under the regulatory framework?

In response to the previous regulatory framework consultation, we decided that domestic consumers will benefit from all consumer protections and micro-businesses will benefit from most consumer protections regardless of whether they are supplied by a small communal network or large district network. Where a specific rule will not apply to a microbusiness, we have identified this within the relevant section. Later in the document, we seek views from stakeholders about (1) whether consumer protections for SMEs are required and, (2) if so, what protections should be considered. In general, we think larger businesses are unlikely to need to be covered by consumer protections due to their ability to negotiate their own prices and terms of service with their network.

What types of Heat Networks are out of scope of Regulation?

A heat network providing heating to a single building with shared facilities (for example a nursing home, university hall of residence or other homes of multiple occupancy) which do not have fully self-contained facilities will fall outside of market framework regulation because the facilities do not constitute separate premises.¹³

Heat networks may serve more than one building but supply thermal energy only to a single business/organisation that occupies the building(s) and is also the network operator / supplier. This is known as self-supply. This includes industrial networks (where the supply of heat is not solely used for an industrial process), hospitals, prisons, university buildings and other buildings where an entity pays for heating on behalf of consumers. We propose that self-supply district heat networks will be out of scope of the consumer protection regulations, however other requirements such as carbon emissions and technical standards may apply and as such the operator / supplier will need to be authorised.

Buildings with air-conditioned systems relying on local compressors, purely ducted air or variable refrigerant volume/flow (VRV/VRF) will not be considered heat networks and therefore we propose that they will be out of scope of regulation as long as they are not also heated or cooled by a heat network. But note that, systems providing cooling to building(s) through a network of pipes and heat exchangers and that supply more than one customer are to be covered by regulation according to the table above.

Individual systems where users generate their own heating, such as individual boilers, electric radiators or overnight storage heaters, are not considered to be a heat network. However, see the clarification above regarding systems with a shared ground loop and individual heat pumps.

Consultation questions

Q1. Do you agree with the scope outlined in this section, and which networks the regulatory requirements should apply to? Please provide views and evidence to support your position where you can.

Q2. Do you agree with our proposed activity definitions for heat supplier and heat network operator and our assumptions around the organisation of district and communal networks?

¹³ Self-contained facilities are taken to mean that the premise has a toilet, personal washing facilities and cooking facilities for the exclusive use of its occupants.

Authorisation scenarios

Based on our analysis of the market using data from notifications under the **HNMBR** (Heat Network (Metering & Billing) Regulations), we believe that for most district networks, a single organisation acts as both the heat network operator and heat supplier. For example, the single entity can be a local authority, social housing or property owner. The remainder of notified district networks appear to be run by ESCos. This would suggest that in most instances a single organisation has responsibility for both network operation and heat supply.

An alternative model that we expect to be less prevalent but potentially growing is where the district network operator supplies heat to a connected building, with the building owner (in-building network operator) billing end consumers. In this “bulk supply” model, one party is responsible for operation of the district network and non-domestic or commercial supply of heat to in-building operator/suppliers and to any non-domestic consumers supplied directly, and is authorised to do so. Another party is then responsible for both the operation of the in-building network and the heat supply to the end consumers, for which a separate authorisation is required. A consequence of this model is a scenario where for a single district heating network, there could be multiple communal blocks each with their own in-building operator/supplier in addition to the district operator/supplier to non-domestic consumers. This does raise the potential of split responsibilities and accountabilities for some consumer protection measures such as pre-contractual transparency and Guaranteed Standards of Performance. We propose to address this in more detail in the subsequent consultation on draft authorisation conditions in 2024.

For communal networks we understand current market practice is, like district networks, integrated supply and operation. Therefore, responsibility either sits with the **heat network (and building) owner** (for example a local authority, social housing provider, freeholder) or a long-term concession holder (an ESCo).

Managing agents play a large role in managing buildings on behalf of owners (particularly in privately-owned buildings), but they always act on behalf of owners. They do not generally take on the responsibilities of the building owner, therefore we would generally expect the building owner to be the regulated entity for a communal network in those instances where an ESCo is not in place.

Where outsourcing of services takes place for activities such as metering and billing or network maintenance, these outsourced service providers are performing these activities on behalf of the building owner who would retain regulatory responsibility. There may also be scenarios where the district operator has the supply contract with the end consumer, without having control over the in-building network. We would be keen to hear about the prevalence of this model and welcome views in general on our view that heat network operation and heat supply are undertaken by the same organisation for most heat networks.

Authorisation examples

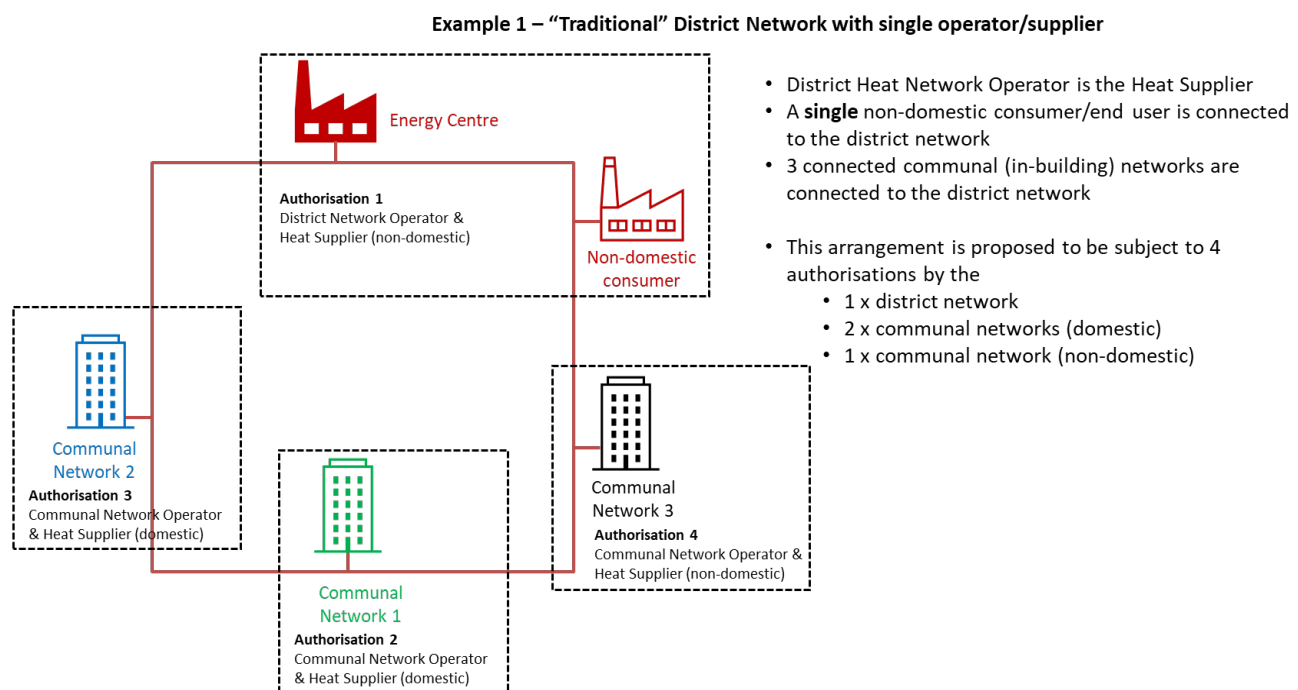
Below, we have provided some examples of authorisation scenarios based on our understanding of current business models and structures. In summary, we will seek to have regulated activities (heat supply and network operation) undertaken by a single regulated entity which will be authorised for these activities for each heat network. Once authorised, entities will be bound by appropriate conditions that apply to either heat supply or network operation. Where entities are both heat suppliers and network operators, conditions relating to both activities will apply.

A single entity for regulation will not be possible in all scenarios. For example, in a bulk supply arrangement we would authorise operation and supply separately with a suitable boundary point such as the substation or building connection to delineate the district and communal networks, with relevant authorisation conditions applying to each (see example 2 below).

Example 1 – District Network – “Traditional” (single operator/supplier)

The single entity acting as a heat network operator and heat supplier would be authorised for the district network and its constituent connected communal networks. This would require that authorisation would be conferred for each district and connected communal network as these are all relevant heat networks. The boundaries between the authorised heat networks would be at the connection points (for example, a thermal substation or heat exchanger where present) between the district and communal/in-building networks. In this example, there is also a single non-domestic / commercial consumer with a heat supply. This would not need to be authorised separately as it does not meet the definition of a relevant heat network.

Figure 5: District Network – “Traditional” (single operator/supplier)



We acknowledge that this is a different approach both in terms of the regulated entities and level of granularity that was notified under the HNMBR, but this is reflective of the move to a new framework underpinned by an authorisation regime. We will work with industry in our beta phase of digital development to develop an authorisation process that is as simple and straightforward as possible.

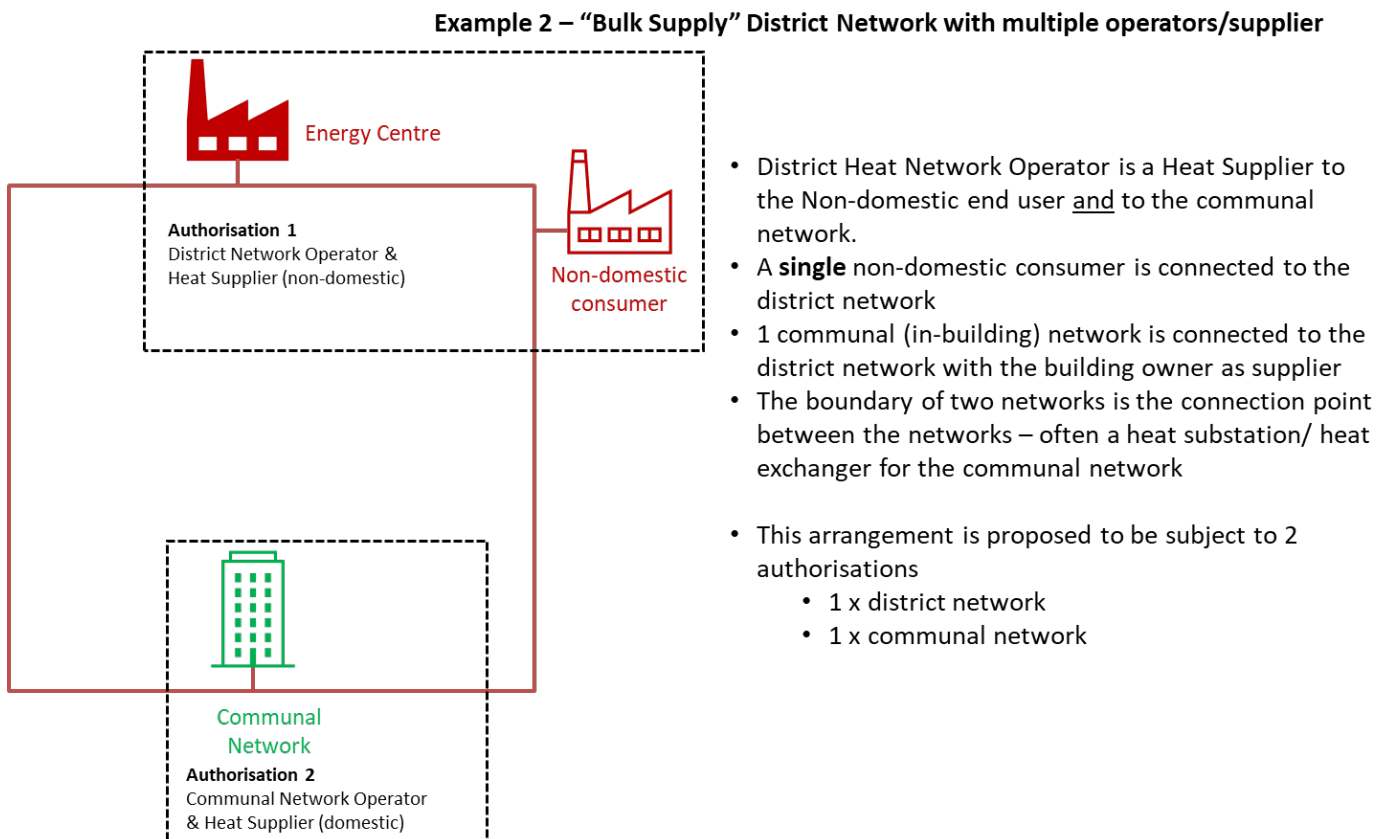
Following authorisation, ongoing monitoring data (see Monitoring, audit, compliance, and enforcement on page 79) would be required for each relevant network including data for connected communal networks.

Example 2- District Network – “Bulk supply”

The network would have a district network operator (and supplier) and a combined in-building operator & heat supplier for each communal network supplied. We propose to set the

boundaries for authorisation between the each of the regulated entities at the connection point between the district network and in-building networks.

Figure 6: District Network – “Bulk Supply” (multiple operators/suppliers)

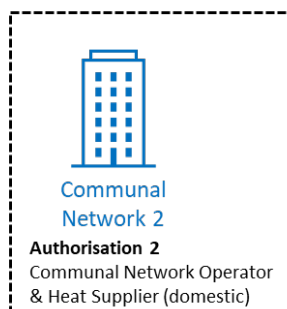
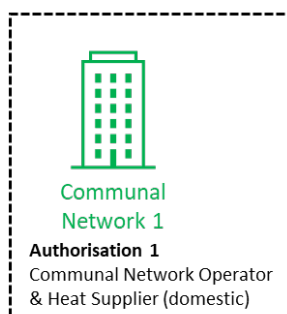


Example 3 – Communal Network

A development of two standalone residential blocks with communal heating that is not connected to a district network. In this scenario, the building owner would be the heat network operator and supplier and requires an authorisation for each network. Therefore, the building owner would be separately authorised for each block with subsequent monitoring data to be provided on a block specific basis.

Figure 7: Communal network

Example 3 – Communal network



- 2 communal (in-building) networks each with a common building owner.
- The building owner is the heat network operator and heat supplier.
- Metering, billing and maintenance may be outsourced but responsibility is retained by the building owner.
- This arrangement is proposed to be subject to 2 authorisations
 - 2 x communal networks

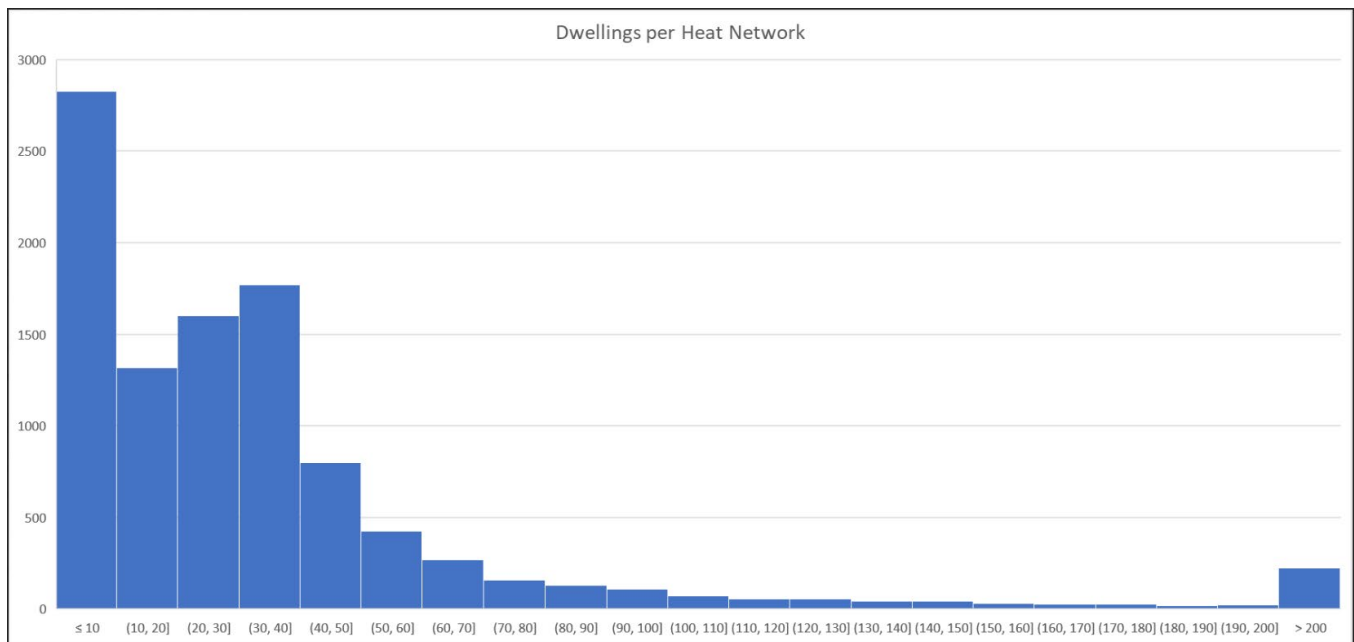
Consultation questions

Q3. Do you agree with our proposal for the separate authorisation of entities where there is a 'bulk supply agreement' in place and operation / supply for district and in-building networks is split?

Regulating small networks

The heat network sector is made up of a mix of district networks (supplying heat to two or more buildings) and communal networks (supplying heat to one building) operated by a variety of public and private sector entities. It is estimated that around 12,000 of the 14,000 heat networks in the UK are communal networks, including nearly 3,000 networks supplying ten or fewer units (see Figure 8 below). Communal networks are estimated to supply 308,000 consumers, or 65% of the overall consumer base.¹⁴

¹⁴ <https://www.gov.uk/government/publications/energy-trends-march-2018-special-feature-article-experimental-statistics-on-heat-networks>

Figure 8: Dwellings per heat network according to 2018 OPSS dataset

In the 2021 government consultation response, we stated that we would not pursue the option of a de minimis threshold below which very small networks would be exempted from regulatory requirements.¹⁵ This is because we do not want to leave the significant proportion of consumers that are supplied by small communal networks without protections. However, we recognise that regulation needs to reflect the various sizes and types of heat networks and differing operating models. Small communal networks (which we are loosely defining as networks that supply ten or fewer consumers) are operated by many types of entities, including large organisations like Local Authorities and smaller ones like building owners. Communal networks can be secondary networks connected to wider primary networks, or standalone systems. Market intelligence also suggests that many small communal networks are older schemes which can experience reliability and efficiency issues.

Regulation will introduce challenges for these types of heat network. For small schemes operated by small entities, or entities with wider responsibilities (e.g. Local Authorities and managing agents), resourcing towards and expertise on heat network operation may be lower than a large energy supplier. There will also be fewer consumers to spread costs across, and older schemes may incur higher compliance costs to bring performance up to required standards. In designing the proposed regulatory framework, we have sought to ensure regulation introduces proportionate requirements on small networks in achieving the principal objective of protecting consumers. Design features are outlined in the following paragraphs.

Lowering costs for heat networks and consumers

Ofgem and Citizens Advice’s costs of performing their respective functions will be spread across gas, electricity, and heat network consumers. We estimate that this will reduce the cost of funding regulation from over £10 per consumer per year (under the default option) to £1.40 per consumer per year.¹⁶ In addition, under the regulatory framework, entities that operate multiple communal networks will be able to cross-subsidise to even out cost recovery of regulatory fees across schemes.

¹⁵ <https://www.gov.uk/government/consultations/heat-networks-building-a-market-framework>

¹⁶ <https://www.gov.uk/government/consultations/recovering-the-costs-of-heat-networks-regulation>

Outcomes- and principles-based regulation

As set out in the relevant sections above, our proposed approach to regulation focuses on the end outcome for consumers, such as Guaranteed Standards of Performance. We also propose principles-based regulation in areas such as cost allocation, market-led step-in, and billing. This will enable small networks to comply with regulation in proportionate and cost-effective ways and, where possible, enable them to continue existing established practices if they already achieve minimum standards. For example, we understand many publicly-owned small networks already have procedures in place for safeguarding consumers in vulnerable circumstances.

Templates and guidance

Particularly in the early years of regulation, we want to ensure that entities in the sector not familiar with complying with various consumer standards and procedures have access to guidance and best practice. As described in the relevant sections above, we are exploring the issuing of guidance on areas such as pricing and market-led step-in, and templates for establishing billing regimes, complaints handling processes, and heat supply contracts. We welcome views from operators of small networks on other areas where guidance and support would be useful.

Phasing in of regulation

As set out in the Sequencing of consumer protection rules section on page 77, we propose that consumer protection rules will be phased in to help the sector gradually adjust to regulatory requirements.

Lighter touch regulatory engagement

As set out in further detail in the ensuing section, Ofgem is exploring approaches to engaging with the sector that can be tailored to smaller networks.

Approach to very small property conversions

There is the potential for the definition of a “heat network” to inadvertently cover some situations which are not heat networks in the ordinary understanding of the term, and which were never intended to be included in regulation. Examples of this include conversions of existing buildings where a larger property is split in half to create two new properties with a shared heating system of single-dwelling capacity (such as a domestic boiler), or the addition of an annexe to an existing property, again using a single heating system of single-dwelling capacity.

In the case of conversions, analysis of address data together with heating system information from Energy Performance Certificates indicates that around 5,000 very small split conversions (two new properties) with shared systems have been created since 2014, at a rate of about 500 per year.

We propose ensuring that the legal framework does not inadvertently capture these very small property conversions and annexes. We believe that such scenarios should not be considered heat networks under the regulatory framework. Their inclusion would also create significant regulatory burden.

Consultation Questions

Q4. Do you consider that our approach to regulation is suitable for the large number of small networks in the sector?

Q5. Do you consider there to be any consumer protection rules proposed in this consultation that small networks will struggle to comply with? Please provide rationale.

Q6. Do you agree with our proposal to not capture very small building conversions and annexes? What would be the advantages and disadvantages of including them? Are there any other similar scenarios that you believe we should not capture? Please provide rationale.

Transitional arrangements

As there are a large number of existing entities already undertaking the activities of heat network operation and heat supply (which will become regulated activities), we consider that transitional arrangements will be required to facilitate the smooth introduction of regulation into a previously largely unregulated sector. The Energy Bill provides for regulations to make provision for an initial period after regulation begins.

In line with the government's 2020/2021 consultation and decision, under the Heat Networks Market Framework, Ofgem will operate an authorisation regime.¹⁷ However, for existing heat network operators and heat suppliers transitional arrangements will apply. These arrangements will provide for them to be authorised from the commencement of the initial period and general authorisation conditions will apply to them.

Heat network operators and heat suppliers seeking to undertake the activities of heat network operation and/or heat supply for new heat networks after the commencement of the initial period must, firstly, before they begin to operate/supply, apply and provide certain information to Ofgem in order to gain authorisation to be able to lawfully undertake these activities and, secondly, comply with any authorisation conditions that apply to them.

The Initial Period

DESNZ proposes that a transition period, referred to as the 'initial period' in the Energy Bill and in this document, will be introduced and will commence on day 1 of regulation. We expect that it will last no more than one year, though it may be extended at the discretion of the government.

The policy intent behind the initial period is to provide an appropriate period for industry to further their preparations and readiness for regulation. It is also expected to allow the phasing in of certain consumer protections and a 'soft launch' of other measures, such as Guaranteed Standards of Performance (see Sequencing of consumer protection rules on page 77 for more information).

Authorisation of existing regulated activity during the initial period

We propose that operation of heat networks and the supply of heat to end consumers will become a regulated activity at the start of the initial period. In recognition of the fact that this is an existing sector with parties already undertaking these (previously unregulated) activities,

¹⁷ <https://www.gov.uk/government/consultations/heat-networks-building-a-market-framework>

government intends to provide in legislation for existing entities to be authorised and subject to general authorisation conditions.

Existing heat network operators and heat suppliers will be required to provide certain information about their existing networks to Ofgem before the end of the initial period; those that do not may be subject to compliance and/or enforcement action. The information that will be required will broadly align with the notifications data that has been submitted since 2015 to the OPSS as per the requirements of the HNMBR. This information will be submitted via the digital system Ofgem is developing to manage its ongoing interaction with regulated Heat Networks entities.

Authorisation process for new heat network operators/suppliers

Before a new Heat Network commences operation and/or supply of heat to end consumers at any time after the start of the initial period the heat network operator/heat supplier would be required to apply to Ofgem for authorisation.

This section sets out our early thinking on the application procedure, which we expect would apply to heat network operators and heat suppliers after the start of the initial period. The application process and information required for authorisation will likely be set out in secondary legislation, made by Ofgem. Ofgem expects to consult further on this during 2024.

The requirement for authorisation of heat networks would commence at the start of the initial period and will be managed via a digital system whereby an application containing all the information requirements is submitted to Ofgem. The overarching objective of the authorisation process will be to ensure that we have in place a proportionate process that avoids barriers to entry to new Heat Network Operators and Suppliers, while minimising risks to consumers by seeking to ensure certain minimum standards are met at entry by those operators/suppliers. The authorisation process would not, and could not, provide any endorsement of the suitability of any entity to undertake the regulated activity, it would be a point in time check against certain minimum standards or requirements. Entities that meet the requirements for authorisation, would be subject to all applicable general authorisation conditions.

In addition to the information required from existing heat network operators/heat suppliers we expect to that new operators/suppliers will also be required to provide amongst other things details of:

- Complaints handling processes
- Pricing data, information and methodology
- Vulnerability procedures
- Evidence of compliance with technical standards
- Commitments to address faults and interruptions within a defined time period

Where appropriate, we may use a declarations-based approach. That is, prospective entrants would be required to provide positive confirmation that, for example, certain requirements were in place in line with the general authorisation conditions. Ofgem would not expect to undertake a detailed assessment of these areas at the point of authorisation, as the onus would be on the entity seeking authorisation to provide confirmation at a suitable level of seniority, but Ofgem

would have scope to undertake more detailed assessment if necessary via ongoing monitoring or audit.

As noted above, we will issue a further, more detailed consultation on the authorisation process and authorisation conditions in 2024. Ahead of this, we welcome any views on the overarching approach we are proposing to adopt.

Use of HNMBR notifications data for existing operators/suppliers

Under the requirements of the HNMBR, heat networks notify the OPSS every four years, providing data on their network as set out in the OPSS notification template. Most heat suppliers submitted notifications in 2015, when HNMBR came into effect, and subsequently in 2019. The next round of notifications for these suppliers is due this year and may further influence our options and how, if at all, we utilise the data provided to facilitate the provision of information by existing operators/suppliers for the purpose of entry into the market framework.

We are considering the potential use of HNMBR notifications data to prefill the submission required for those existing heat networks that are already registered with the OPSS. For example, this may allow previously submitted information to be retrieved, reviewed and where necessary updated in order to support the provision of information by an existing operator/supplier.

There are challenges in using the existing HNMBR data. A key concern we have is ensuring the right party is able to retrieve the correct data and managing the risk of exposure of another network's data.

During the alpha phase of our digital platform development, our user research found mixed industry views on the benefits of utilising existing HNMBR data to facilitate the provision of information from existing networks. It should be noted that even in the absence of pre-filled HNMBR data being made available, regulated entities will still have access to their own HNMBR submission(s) and will be able to use the data they already hold if it remains accurate. We are keen to understand industry views on this to inform next steps and the scope of the digital platform development phase.

The development of the authorisation approach and application procedure will take place iteratively during the next phase (beta) of the digital platform development project. During the beta phase we will engage with industry on the development and testing of the process and are considering the creation of a working group to encourage participation in the process and to address any feedback received through consultation.

Authorisation Fees

At this stage we do not propose to charge a fee for the submission of an authorisation application for new heat networks. It is anticipated that the costs of the authorisation process will be recovered via the annual cost recovery process outlined in the section entitled Ofgem's administering of the cost recovery regime on page 83. We believe this is an appropriate approach as the heat network sector is moving from one regulatory framework to another and do not want the payment of fees to be a potential barrier at this stage. This approach may change in the future with charges applied as part of the authorisation process for new entrants.

Heat Network Failure

With regard to step in provisions, we expect that businesses connected to heat networks will have robust contractual arrangements in place to manage the risk of failure. The proposals in

this consultation address requirements we expect all responsible heat networks to have in place to manage the risk of failure, on contractual step in, financial monitoring and CSCP (Customer Supply Continuity Plans). We have not yet reached a view on whether these measures, and any regulatory backstop, would extend to non-domestic networks. We will consider this issue more fully when we publish a consultation on step in, during early 2024. We welcome views from non-domestic networks and consumer groups as to whether the requirements in this consultation should apply to this sector.

Consultation questions

Q7. Do you agree with our proposed approaches for the authorisation of existing and new heat networks?

Q8. What are your views on the potential use of HNMBR notifications data to support the information provision process for existing heat networks? Are there any specific actions around notifications due this year that you feel could further facilitate this process?

Approach to protecting consumers and regulating the sector

Heat is a service essential to life and it is therefore paramount that consumers receive a fair price, reliable heat, and good customer service. Heat networks are local monopolies providing this essential service, which means consumers are unable to switch to a different operator if they are unhappy with the service provided. There are clear risks associated with monopoly provision, such as high prices, insufficient supply and poor service. Consumers need to be protected against these risks and we therefore need a strong regulatory framework to protect them. This will bring certainty for consumers, the market and investors alike, helping the sector to grow and play its essential role in decarbonising heat.

While our aim is to ensure that heat network consumers receive comparable standards to gas and electricity consumers, the current heat networks market differs significantly from other established and currently regulated monopoly markets, such as gas and electricity distribution or the supply of water, and competitive markets such as gas and electricity retail. The main distinctions are the local nature of heat networks and the large number of small players in the market. The sector is in a nascent stage, with expected high growth, and therefore it is important that any intervention, for example in relation to pricing, is proportionate.

Existing housing legislation, such as the Landlord and Tenant Act 1985 (which extends to England and Wales) and the Housing (Scotland) Act 2006, provide some protections for the private property sector. These rules set out the rights and responsibilities of both landlords and tenants, encourage transparency, set rules about what costs can be fair and reasonably incurred, and enable dispute resolution when leaseholders or homeowners have complaints.

Similarly, social housing regulations set out specific requirements for the management and operation of social housing properties to protect tenants, including requirements around repairs and maintenance, health and safety, and tenant involvement.

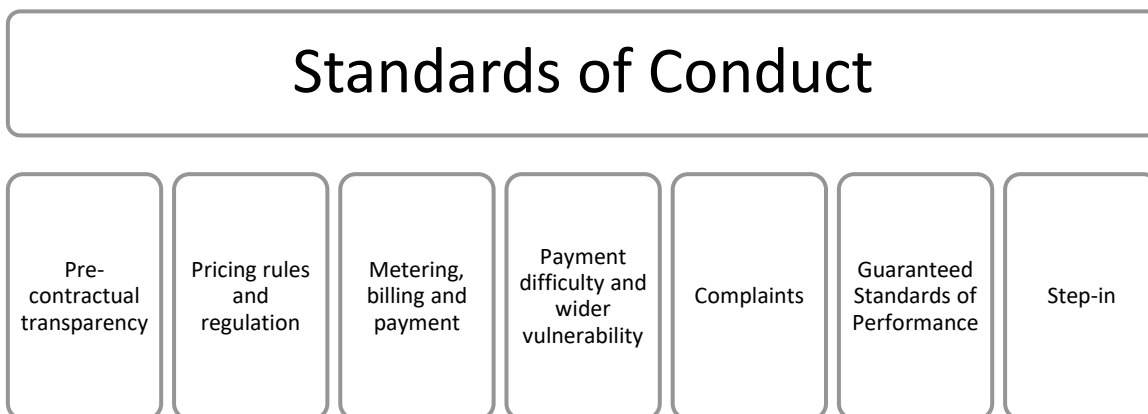
Proposals for heat networks regulation aim to build a stronger framework for consumer protection and it is important that we consider how the different sets of rules can co-exist and work together. In summary, we think our proposals will dovetail well with existing protections and approaches in both jurisdictions. Where a policy proposal has scope for friction, we have

called this out alongside mitigations we are considering. We welcome views on this, including options for mitigating any unintended consequences which may arise.

For example, we understand that some heat networks can hedge their energy purchases by securing multi-year contracts with suppliers or brokers, whilst others are on spot price contracts. Other providers for leasehold properties procure fixed tariffs and renew on a yearly basis, driven by a desire to avoid having to consult under the Landlord and Tenant Act 1985 or, alternatively seeking dispensation from the First Tier Tribunal from doing so. We are aware of the impact this has on energy rates and are working across government on potential solutions.

We propose to take a regulatory approach that combines high level principles where possible (to enable innovation) with prescriptive rules where minimum requirements need to be met (for example to protect consumers in vulnerable circumstances or to set minimum standards for reliability). This will allow a flexible approach that can be applied by small communal networks up to the largest district heating networks. An important factor for us, when considering the balance of prescriptive and principle-based rules, is that the sector has limited experience of being regulated for heat supply. A higher level of prescription, or principle-based rules with more extensive guidance, is therefore likely to be appropriate. We also recognise that the transition from an unregulated to a regulated sector will take time, as will the new requirements that will deliver better outcomes for consumers.

Figure 9: Illustration of the consumer protection framework



Consultation question

Q9. Do you agree with the proposal to use a mixture of principles and prescriptive rules to protect consumers? Do you agree with our assessment that parts of the sector are likely to want directive rules and supporting guidance to help them comply?

Overarching principles – Standards of Conduct

A common challenge when developing consumer protection regimes across different sectors, and consumer protection policy in general, is that regulators and policymakers need to address the power imbalance that exists between organisations providing goods and services, and consumers. Consumers also have limited time and engage with many different products and services. This risks poor outcomes for consumers, and this risk is exacerbated when they cannot choose to switch away from the provider of a product or service. However, we recognise that particularly for heat supplied through small heat networks, companies may have less expertise or resource to support their heat network activity.

Several regulators have tried to address this power imbalance by placing obligations on regulated entities to treat their consumers fairly. This is clearly visible in the approach of regulators like Ofgem, which has set general Standards of Conduct for both gas and electricity supply and certain regulated networks, and the Financial Conduct Authority, which has developed a Consumer Duty for the firms it regulates, which goes further than a treating consumers fairly principle.¹⁸ This approach is also similar to the requirement from the Regulator of Social Housing in its Tenant Involvement and Empowerment Standard, which applies to providers of social housing in England and Wales.¹⁹

We propose to primarily draw on Ofgem’s existing Standards of Conduct and implement a very similar, cross-cutting principle. This would include a broad objective to treat domestic consumers fairly and tailor consumer services to their needs.

Examples of the behaviour that we would expect of heat network operators and heat suppliers to deliver this objective are to:

- Behave and carry out any actions in a fair, honest, transparent, appropriate, and professional manner.
- Provide information to customers of a certain quality (for instance, complete and not misleading), in plain and intelligible language, relevant, and sufficient for the consumer to make informed choices.
- Provide consumer service of a certain quality (for instance, easily contactable), prompt and courteous to act when a mistake is made, and a generally well-run consumer service function.
- Identify vulnerable circumstances effectively and appropriately and support these consumers appropriately.²⁰

We would expect operators and suppliers to be able to tailor the implementation of this principle to their local circumstances, which means it would be implementable for both smaller and larger networks. The regulator would aim to support this tailoring through issuing guidance for the sector.

In addition to this overarching principle, we are considering if a further principle is needed around engaging consumers and bringing the consumer voice into the operation of the heat network, similar to requirements on large distribution networks in gas and electricity, the Scottish Social Housing Charter and the recent direction from **DLUHC** (Department for Levelling Up, Housing and Communities) regarding tenant involvement.²¹ These measures

¹⁸ <https://www.ofgem.gov.uk/industry-licensing/licences-and-licence-conditions/>;

<https://www.fca.org.uk/publications/policy-statements/ps22-9-new-consumer-duty>

¹⁹ The Regulator of Social Housing is currently consulting on a revised set of consumer standards;

<https://www.gov.uk/government/consultations/consultation-on-the-consumer-standards>

²⁰ We would expect to draw from well-established definitions of vulnerability in regulated sectors when developing the definition of vulnerable circumstances, see for example appendix 1 of the Ofgem Consumer Vulnerability Strategy 2025:

https://www.ofgem.gov.uk/sites/default/files/docs/2020/01/consumer_vulnerability_strategy_2025.pdf; or FCA, <https://www.fca.org.uk/publications/finalised-guidance/guidance-firms-fair-treatment-vulnerable-customers>; Ofwat: <https://www.ofwat.gov.uk/regulated-companies/vulnerability/>

²¹ See standard and outcome 3 on participation which requires social landlords must manage their businesses so that: “tenants and other customers are offered a range of opportunities that make it easy for them to participate in, and influence their landlord’s decisions at a level they feel comfortable with”,

<https://www.gov.uk/government/publications/revised-directions-on-tenant-involvement-and-mutual-exchange/directions-on-the-regulatory-standards-relating-to-tenant-involvement-and-mutual-exchange-2023>

could include a requirement to monitor consumer feedback, a requirement to test communications with consumers and more broadly a requirement to consider how consumer views could be gathered for large decisions affecting consumer outcomes (for example investment decisions or maintenance plans).²² We are keen to gather views from stakeholders on whether additional requirements on consumer engagement could lead to improved outcomes for consumers and whether this is something that should be considered now or in the future.

Consultation questions

Q10. Do you agree with the introduction of an overarching Standards of Conduct principle for all heat networks? While we expect all heat networks to identify and support customers in vulnerable circumstances, we would be keen to understand if any networks would find this particularly challenging to deliver.

Q11. Do you think we should further consider requirements on consumer engagement and including the consumer voice in heat networks' decision making?

Fair pricing

The proposals on legislation in relation to pricing are aimed at improving transparency and giving the regulator specific powers to protect consumers from disproportionate pricing and monopoly power. It is important that any intervention in relation to pricing is proportionate given the nascent state of the sector and its expected growth. Ofgem's focus will be on addressing pricing issues where these arise while reducing burdens on heat suppliers as far as possible. This will minimise the impact of heat networks passing additional regulatory burden onto final consumers, while providing consumers with protections from unfair prices.

Context

The CMA's 2018 market study did not find evidence of systematic high prices across the market, with average prices on most heat networks within the CMA's sample close to or lower than the price of a gas heating-based comparator.²³ The CMA did recognise there were some pockets of higher pricing but did not identify an urgent need for intervention to reduce prices across the market. It recommended that the sector regulator should monitor that prices are not excessive and require all heat networks to comply with 'principles-based' rules or guidance on pricing.

We propose that the regulatory framework delivers fair pricing and powers that are in line with the recommendations from the CMA investigation. Ofgem will have the following powers in relation to pricing:

- Mandated price transparency
- Pricing structure and cost allocation rules
- Pricing investigations and powers to introduce rules and guidance

²² This is similar to some of the requirements seen in other countries and sectors, eg the Price Dialogue in Sweden, or the customer panels in gas and electricity network regulation.

²³ <https://www.gov.uk/cma-cases/heat-networks-market-study>

- The ability to collect data and develop a comparison methodology

The price change and fairness questions in the Heat Networks Consumer Survey indicate that consumers have concerns about the prices they are being charged and these are not in line with expectations.²⁴ This perceived unfairness could be explained by several reasons including a lack of transparency, recent gas price rises, network inefficiency, and excessive margins.

Scope

Heat network suppliers and operators are in scope. Therefore, heat networks supplying domestic consumers both directly, indirectly or both will be in scope, so that all domestic consumers will be protected by the pricing proposals. We propose that consumer protections, including pricing measures, are to extend to microbusinesses, and potentially to SMEs. However, it is not envisaged that the price transparency requirements will apply to networks which provide heating and cooling to large non-domestic consumers only, as these networks have discretion on negotiating the terms of their larger heat supply agreements.

For this consultation we are interested in views from stakeholders on how the proposed approaches across pricing may need to be adapted for microbusinesses and for mixed networks with domestic and non-domestic consumers. For the non-domestic heat network market, we will use insights gathered from Ofgem's recent review into the non-domestic gas and electricity market.²⁵

Outcomes

The outcome we are seeking to achieve in relation to pricing is good outcomes delivered for consumers at a fair and transparent price.

In achieving this outcome and developing the framework we need to consider, firstly, that costs and prices will vary depending on network, technical and commercial characteristics. For example, we expect to see differences between networks run on a cost recovery approach (not-for-profit, all costs recovered from consumers in the following period) compared to those run on cost avoidance (profit driven, commercial enterprise). Secondly, the heat network sector is developing and the approach to pricing must be dynamic and flexible to emerging challenges. For example, it will be crucial for regulation to accommodate networks of different scales and ages, as well as varying energy inputs, as the sector's low carbon transition continues.

Interactions

As noted above, DESNZ will consult on zoning in due course, at which point the interaction between zoning and pricing proposals will be considered. In the Autumn statement 2022, we set out that we would explore the best approach to all forms of consumer protection from April 2024 as part of wider retail market reforms. We have already started working with consumer groups and industry on this issue.

²⁴ The Heat Networks Consumer Survey is a research project into the experiences of consumers on heat networks (<https://www.gov.uk/guidance/heat-networks-overview>), carried out by the Department for Energy Security and Net Zero (formerly conducted by BEIS). See more here <https://www.gov.uk/government/publications/heat-networks-consumer-survey-consumer-experiences-on-heat-networks-and-other-heating-systems>

²⁵ Please see more on the review here <https://www.ofgem.gov.uk/publications/call-input-non-domestic-gas-and-electricity-market>

Transparency

Context

There is a lack of transparency on prices within the sector. This makes price comparison between heat networks very difficult. We expect that consumers would be more empowered to challenge their bills if they were aware of, and understood, prices being charged by equivalent schemes, or wider industry trends.

We propose billing and transparency measures that provide consumers with both individual bill transparency, including breakdowns of variable and fixed costs, and greater transparency across the sector. In practice, this would mean tariff and other information from across the sector would be available in the public domain. This is beneficial for a range of reasons, including:

- Enabling existing consumers to compare prices against an average price or range of prices for similar networks, creating pressure to lower prices, given reputational risk. Required billing formats would direct consumers to information sources in order to carry out these comparisons. Enabling prospective consumers, such as property renters or buyers, to be better informed about the charges they may face.
- Informing the sector and Ofgem of wider trends seen across the market, which in turn would influence Ofgem's likely areas of interest and action. This provides the market with signals to improve such issues before the need for intervention.
- Informing secondary markets. For example, heat network improvement firms could identify potential clients for efficiency projects and offer services directly.

Such transparency measures would require the development and publication of centralised pricing data and information that could include network characteristics such as price by location, technical efficiency level, and age. The approach needs to consider that costs can vary significantly with the nature and size of a scheme and therefore price comparisons between different schemes are not always meaningful and could lead to consumers incorrectly perceiving prices as unfair. We are interested in stakeholders' views on who would benefit from the publication of pricing data and what its purpose should be.

Options for approach

Table 3 sets out some initial examples of how the centralised publication of pricing information could be approached. We are seeking stakeholder views on the approach to the central database so we can further develop proposals and ensure we are capturing issues and concerns. We will also need to explore timeframes for the publication of data centrally as this will require data submission, and consider how regularly the information should be updated. For all the options in the table below, data submission by suppliers and operators would be mandatory. This is covered in the Monitoring section, later in this document.

Table 3: Examples of centralised information on the market

Option	Pros	Issues/Challenges
<ul style="list-style-type: none"> Full HN register <p>A list of all HNs, with their prices and key characteristics (efficiency, size, energy source) shown at a network level.</p>	<ul style="list-style-type: none"> A stronger reputational incentive as individual HN information is published. Consumers or consumer groups have more granular data to challenge HNs on pricing or efficiency. Including efficiency characteristics could provide an incentive to make improvements and reduce costs. Could have some administrative benefits for smaller networks that do not have their own websites. 	<ul style="list-style-type: none"> There could be commercial sensitivities. Administrative burden to update, depending on technology. Could create confusion if people use the data to compare HNs when such a comparison is not suitable. Could be more difficult to digest and compare for consumers if poorly presented. Data comparison may incentivise suppliers to increase their own prices if they are shown to be low outliers.
<ul style="list-style-type: none"> Segmented approach <p>A list of different groups of HNs. HNs will likely be grouped by characteristics (efficiency, age, technology, etc.), with a range of prices or an average for each grouping.</p>	<ul style="list-style-type: none"> Provides some information to allow greater ease of comparison by certain characteristics and provides illustration of market trends. Should avoid commercial sensitivities around information. Including efficiency characteristics could provide an incentive to make improvements and reduce costs. Some pressure on suppliers, given a network's own consumers will identify where the network sits within the ranking, using their individual billing information. Segmented information provides an easy and digestible format for consumers to understand. 	<ul style="list-style-type: none"> No grouping will be perfect so will need clear caveats about what comparisons can and cannot be made. The efficiency and losses characteristics will need to align with information gathered via certification under the technical standards assurance scheme. Like option 1, data comparison may incentivise suppliers to increase their own prices if they are shown to be low outliers.
<ul style="list-style-type: none"> Across market average and comparison to gas and low carbon alternatives (indicators/infographic) <p>A high-level market averages comparison. This could take a similar approach to published data on gas and electricity indicators, or the Heat Trust cost comparator.</p>	<ul style="list-style-type: none"> Should avoid commercial sensitivities around information. Easiest for consumers to understand. Administrative task could be less of a burden if task undertaken once a year. Provides overview of general market trends. 	<ul style="list-style-type: none"> The ability to compare a network could be limited as the characteristics of a network could explain differences from the average.
<ul style="list-style-type: none"> Provide information on the best and worst 	<ul style="list-style-type: none"> Could provide reputational incentive for suppliers not to be on the worst performers list. 	<ul style="list-style-type: none"> Focus on price rather than other characteristics such as network

<p>performers across the market</p> <p>Ofgem uses this approach for data on service provision for vulnerable consumers, publicly listing the best and worst performers in the market.</p>	<ul style="list-style-type: none"> • Publishing the best performers could help promote good practice. 	<p>efficiency could limit the frame of reference for comparison.</p> <ul style="list-style-type: none"> • A worst performers list might offer safety in numbers and therefore disincentivise suppliers from improvement.
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Each option brings with it certain advantages and disadvantages. There are two further alternatives:

- a “do nothing” option where transparency relies only on the information provided through individual bills and more information available on heat network websites. This would limit the ability to compare prices across networks.
- a voluntary register, whereby networks could choose to upload their pricing information. This does not seem useful, as it would likely provide only a partial view of the sector, with poor performers opting out.

To note, there is a later section of this consultation (see the section Transparency of information during residency on page 70, and Appendix 2: Transparency of information to the consumer proposals on page 100) which covers issues to do with consistent, clear billing across the sector.

Consultation questions

Q12. How often should Ofgem update any public register of pricing data? How often should heat suppliers be required to submit pricing data to Ofgem?

Q13. What are your views on Options 1, 2, 3 and 4 for centralised price transparency? What combination of options would work best? Please provide detail on why a particular combination could work well.

Q14. What do you foresee as the main challenges of each option for centralised price transparency?

Overall approach

Context

The regulatory framework will include authorisation conditions in relation to pricing. These are likely to cover obligations on provision of transparent and fair pricing, as well as Ofgem’s ability to carry out price investigations where there are concerns around disproportionate pricing.

An approach focused on outcomes may be more suitable for this sector, due to its diversity, and especially at the outset, as it is transitioning to a full regulatory framework. This could place a general obligation on heat networks to provide fair and transparent prices. However, if this approach were taken, it would need to be accompanied by rules and/or guidance which could set out minimum expectations, good practice, and how meeting the obligation could be different depending on certain characteristics of the heat network.

A more prescriptive approach would ensure consistency in outcomes. However, the diversity of the market could make a common standard too high for some operators, and too low for others. The approach needs to consider the range of different commercial arrangements.

Ofgem has examples where outcomes-based licence conditions have been used but then complemented with guidance. In some instances, standards from guidance were moved to the licence as a clearer understanding of the market was gained, specifically operators' capacity to adhere to higher standards.

Options for approach

The general authorisation conditions on fair pricing could be supported by principles, rules or a mix of the two, covering a range of areas that would be considered in the context of fair pricing. For example, rules would be used where appropriate to apply a minimum standard across all networks or to certain market segments. Specific areas which could be covered by rules are detailed below, for example, cost allocation.

We are interested in stakeholder views on, firstly, the balance between guidance and prescriptive rules, and, secondly, minimum standards. The latter could be introduced across all heat networks through the authorisation conditions, whereas the former would be used for introducing pricing principles and recommendations on best practice.

To help define our expectations on fair pricing a set of broad outcomes could be required. For example, these could cover:

- Prices should be reflective of efficient costs of the network, an appropriate quality of service, have regard to affordability, and consumption levels of consumers. We expect networks to take steps to create cost efficiencies, implement technical efficiencies, implement metering for accurate consumption readings, and recover costs effectively.
- Disproportionate pricing would be where networks are pricing significantly above costs, making excess profit or not making efficiencies where clearly possible. Definitions of 'excess' or 'significantly above' could be determined with reference to external price benchmarks and/or a reasonable rate of return.
- Consumers should be protected from taking on a disproportionate level of corporate risk, such as improper recovery of significant initial capital costs in the development phase, or improper recovery of capital expenditures recovered from sinking funds that can cause temporal mismatch between consumers who are paying and consumers who are benefitting from the improvements.
- Pricing should not discredit the growth of the heat networks sector given its importance to net-zero goals. Heat network consumers should not be unduly disadvantaged compared to other consumers on alternative heat sources such as gas boilers or heat pumps.
- Heat networks, in absence of competition, should strive to improve efficiency of network operation and costs, and maximise consumer benefit in their decisions. For example, through competitive fuel procurement and outsourcing contracts, cost and technical efficiencies, and restricted cost passthrough.
- The organisation(s) subject to regulation must have oversight or control over regulatory outcomes even when management is outsourced. For example, through supply chain visibility and common goals, ensuring responsible parties can manage operational costs and tariff design, and tendering criteria for contracting out.

- Heat networks should be incentivised to make choices based on long-term efficiencies. Networks should not overlook larger scale investments such as technical efficiency and decarbonisation improvements to cut short-term costs and ensure there is sufficient financing to cover such improvements.
- To complement the overarching pricing framework, authorisation conditions and pricing guidance and rules could be introduced on specific costs that are mostly likely to influence whether a price is fair.

Table 4 sets out some of the areas where fair pricing principles and rules could be further explored in relation to performance and financial and business management. In Appendix 1, see page 94, for each cost area we set out the relevance to fair pricing and also the considerations on whether prescriptive rules, minimum standards, principles, or a mix might be appropriate.

Table 4: Fair pricing rules on performance and financial and business management

Performance	Financial and Business Management
Network efficiency Site and business comparisons Maintenance and service costs Consumer service charges	Cost reflective pricing Rates of return / profit Hedging expectations and strategies Restrictions on passing on fines Debt management Capital cost recovery Cost subsidisation

Many of these areas are linked to other parts of the regulatory framework. It will be important to be consistent with the policy and standards that are set on technical efficiency and other consumer protections. We are interested in views on our proposed scope for authorisation conditions and guidance, any additional areas stakeholders think should be covered, and best practice examples or suggestions of the principles that could be applied across the sector or to particular segments. We are interested to hear any issues stakeholders think may specifically relate to leasehold arrangements, not-for-profit networks, and small players.

Consultation questions

Q15. What are your views on a general obligation on heat networks to provide fair and transparent prices, accompanied by rules and/or guidance, setting out minimum expectations, principles, and good practice? We are particularly interested to hear from leasehold arrangements, not-for-profit networks and small players.

Q16. Do you agree with the broad set of outcomes (in the bullet point list on page 41) that would define our expectations on fair pricing?

Q17. We are interested in stakeholder views on the balance between prescriptive rules (setting minimum standards) and general guidance, that could be introduced across all heat networks. Which areas, in Table 4 above and Appendix 1 Fair Pricing - rules and guidance, should be covered in rules, which should be covered in guidance, and which should be left to the market?

Cost Allocation

Context

We understand from engagement with stakeholders that most metered consumers pay a unit rate and a single fixed charge. However, it is often unclear what costs are recovered through these charges. In some schemes it is possible to find just a single unit rate, or more than one unit rate, or more than one fixed charge, for example monthly standing charges and capital replacement charges. Amongst unmetered schemes, a large variation in pricing structures also exists, where the energy price is included in service charges or rent. Such circumstances make up a large proportion of the market.

All these differences make comparisons difficult. Inconsistent cost allocation methods mean some consumers pay disproportionately high prices. Setting cost allocation rules on what costs should be recovered through fixed and variable charges will address this and help ensure a consistent evidence base for future benchmarking.

Options for approach

We have looked at some of the policies used by different countries on how they allocate costs into standing and variable charges. Generally, components of the standing charge include asset depreciation, repairs and maintenance, administrative costs, employee costs (with the exception of Denmark), and financial costs such as leasing. Variable charges generally consist of variable fuel and production costs. Table A1. 3: *Examples of cost allocation approaches*, Table A1. 3: Examples of cost allocation approaches on page 97, sets out examples of cost allocation in other countries.

Overall, we seek examples and views on how cost allocation could be approached in the market. We are interested in understanding:

- how different approaches could be applied to different segments of the sector. Given the sector's diversity, one set of rules may not suit all networks. We are aware that there are various billing approaches and these may reflect existing commercial arrangements.
- the speed at which any binding requirements should be brought in. We are aware that an immediate prescriptive approach may not be desirable and that principles could be used initially as a transitional phase, with prescriptive rules likely to apply later to provide the consistency needed for effective benchmarking.
- whether changing existing leaseholder and landlord related legislation would support heat network operators in allocating costs more fairly.
- how different socio-economic groups may be impacted by cost allocation changes. Given consumption and payment patterns vary between groups, there is a risk of one group paying a disproportionate amount towards certain costs.

Consultation questions

Q18. Should cost allocation rules be applied uniformly across the sector, or should there be different rules for different segments? If the latter, what segmentations do you suggest? Please cite examples of good practice for your suggested approaches.

Q19. How are the current tariffs charged by heat suppliers broken down into the components of standing charge and variable charge? What are the variables affecting the cost components and what are their accounting / financial methodologies? We

would also be interested to know how very small networks decide how to set standing and variable charges.

Q20. How prescriptive should these rules be? What are the constraints and issues that need to be considered during the transition period and beyond?

Q21. What are the main implementation challenges with the different options?

The following questions are targeted at heat network operators:

Q22. What are your main sources of funding for daily operations and general policies for financial management, for example bad debt management and recovering capital expenditures (where relevant/possible)? Please refer to page 98, at the end of the Appendix 1, for a detailed breakdown of information requested. If you operate more than one heat network, do you allow cross-subsidisation between heat networks and if so, what are your policies governing this (where relevant/possible)?

Q23. What gas procurement practices and hedging approaches and strategies do you use (where relevant/possible)?

Comparison Methodology and Benchmarking

Context

A benchmarking approach will be used to identify instances of disproportionate pricing. We recognise that any benchmarking approach is likely to require data reporting. The sector already has access to the Heat Trust calculator, and this could be used as the basis to provide a benchmark against gas.²⁶ However, we are keen to build upon the methodology and make improvements where appropriate. We recognise that a gas alternative benchmark will become less relevant as wider heating decarbonisation takes effect. Additionally, many heat networks are already considering a low carbon heat source. Therefore, it would be sensible to also benchmark against a low carbon alternative, such as a heat pump. There are a range of benchmarking approaches that could be used, and these are summarised in Table 5.

Table 5: Examples of benchmarking

Option	Pros	Issues / Challenges
<p>1. No benchmarking</p> <p>Prices are not assessed against any published benchmark²⁷</p>	<ul style="list-style-type: none"> • Lower regulatory burden • Easier for firms to enter the market 	<ul style="list-style-type: none"> • Consumer detriment as consumers do not have power to switch or negotiate prices • No incentives for reducing/eliminating overcompensation²⁸
<p>2. External benchmarks</p> <p>Comparison against a counterfactual – usually the best alternative, e.g. gas boiler or heat pump</p>	<ul style="list-style-type: none"> • Approach is simpler for all parties to interpret • The analytical work would require less resources than cost-based approach 	<ul style="list-style-type: none"> • There may be cases where pricing is at a comparable level to gas (or other benchmarks) consumers, but costs are much lower than the reference price, so margins are high. Depending

²⁶ <https://calculator.heattrust.org/>

²⁷ Ofgem will still develop price benchmarks for their own purposes but in this option they are not published

²⁸ Overcompensation is the excess profits earned by entities above their cost and reasonable rate of return.

	<ul style="list-style-type: none"> • Does not discourage infrastructure investments into the sector • A heat pump will become an increasingly relevant low carbon heat comparator 	<p>on the approach used to define fairness in pricing, this could be an issue.</p> <ul style="list-style-type: none"> • Gas reference may become less relevant, so methodology may require continuous updates. • Costs may not be recovered for inefficient networks
<p>3. Across market average</p> <p>Heat networks compared to a market average benchmark</p>	<ul style="list-style-type: none"> • Reduces overcompensation • Provides transparency and predictability on the benchmarking process, which provides a more supportive environment for investment • Rewards for being efficient relative to an average heat network. • Comparatively lower cost to regulator in administering dataset (ongoing costs) 	<ul style="list-style-type: none"> • Not optimal for eliminating overcompensation • Set up costs for the regulator are high
<p>4. Comparator price-based benchmark</p> <p>Networks' prices are compared to others with similar characteristics that affect costs (e.g. age of network)</p>	<ul style="list-style-type: none"> • Financial incentives for suppliers to reduce costs and become more efficient • Rewards for being efficient – efficient firms will enter and expand in the market • Incentives for sector coupling, efficiency improvements and network integration where the reduced costs are kept as additional profits or reinvested • Low marginal costs for monitoring 	<ul style="list-style-type: none"> • Significant upfront costs to the regulator at the start of each regulatory period to determine the prices, although costs are expected to decrease over time.
<p>5. Cost based</p> <p>Each network's prices are compared against its costs to determine whether prices are reflective of costs plus a reasonable return</p>	<ul style="list-style-type: none"> • Eliminates overcompensation but can set wrong incentives for companies to inflate their costs • Relatively lower administrative burden 	<ul style="list-style-type: none"> • Requires high initial costs to establish allowed Rate of Return (RoR) • There is uncertainty on the optimal level of RoR and its impact on investment incentives • Does not strictly incentivise investment in customer

		service or innovating / coupling
<p>6. Efficiency/incentive based</p> <p>A reference price would be based on a methodology (efficiency benchmark) of how costs are passed onto to consumers through the price of heat.</p>	<ul style="list-style-type: none"> • Eliminates overcompensation and takes into account consumer service outputs • Incentivises expansion due to clarity on cost recovery mechanism and reward for delivering pre-specified output • Incentivises innovation and coupling through cost reduction and output-based incentives 	<ul style="list-style-type: none"> • Very high regulatory burden on the regulator due to analytical work to calculate acceptable RoR and efficiency benchmark
<p>7. Comparison to own prices</p> <p>Under this method, the prices set by each heat network would be compared to its own past prices over several years to detect significant deviations that are not explained by input cost fluctuations.</p>	<ul style="list-style-type: none"> • Low regulatory burden • Simple analytical approach for all parties, which increases transparency and requires less resource for the benchmarking process. 	<ul style="list-style-type: none"> • Does not prevent overcompensation • Does not strictly incentivise investments in consumer service • Does not identify outliers relative to market-wide prices • Can set wrong incentives for inflating costs over time

When deciding on the appropriate method for benchmarking, we consider key criteria to be:

- the effectiveness of the benchmark in providing fair pricing, impact on investment decisions;
- resource requirements (both from the perspective of the regulator and the heat network entities);
- the nascent state of the market; and,
- possible unintended consequences and perverse incentives.

Our current preference lies between three main benchmarking approaches to ensure fair pricing: external benchmarks (option 2), comparator benchmarks (option 4), and comparison to own past prices (option 7).

To develop comparator benchmarks, we are considering how we can segment the market. We are investigating the characteristics that have the most impact on the costs incurred by heat networks and that are subsequently passed on to consumers via bills. We think the following characteristics are likely to have the most impact:

- Function (operator/supplier/both)

- Ownership / commercial arrangements (including leaseholder, freeholder, and landlord)
- Profit / non-profit
- Age of heat network
- Size
- Density
- Technology
- Consumer demand
- Thermal demand
- Heat distribution temperature
- Metered vs non-metered
- Network built pre-regulation vs post regulation
- If the heat supplier also generates electricity (either to be sold to consumers via private wire or to the grid)

To inform the range of proposals on pricing we will need heat networks to provide data as part of regular reporting. The amount of data Ofgem requests may depend on what approach we take. However, we think benchmarking will require heat networks to provide Ofgem with their tariffs and prices, some cost and profit information, and network efficiency. This could be annually, biannually (twice a year), or quarterly. We are interested in striking the right balance between minimising administrative burden whilst ensuring we have adequate information to spot issues. We think monthly reporting would not be proportionate given how often most heat networks change their prices, but we are interested in views on the data, frequency, and format for reporting.

Consultation questions

Q24. What are your views on the proposed benchmarking approaches? Do you agree that Ofgem should develop options 2, 4 and 7? With each approach, what are the main considerations and implementation challenges for the sector that should be considered when developing the methodology?

Q25. What are your views on how Ofgem should approach segmenting the market for price benchmarking? What are the main characteristics that should be considered?

Pricing investigations and compliance

Context

The limited ability of consumers to switch or disconnect from their heat network reduces the potential impact of transparency measures. Ofgem will have the power to take action where prices for domestic consumers appear to be disproportionate, informed by tools such as benchmarking discussed above, as well as other information, for example from our monitoring and compliance activity.

If disproportionate pricing is found, an appropriate set of actions to address this will be considered. For example, Ofgem could use its order-making powers. If appropriate Ofgem could impose scheme specific pricing restrictions, which would be different to market-wide price controls discussed below. If this were not suitable, wider actions using broader compliance or enforcement tools might be considered, for example requiring some form of performance review to identify interventions for long term cost reductions.

When carrying out this work, Ofgem will be mindful that consumers have existing rights to challenge prices they perceive as unfair. We see these processes as supporting and reinforcing each other.

Options for approach

We understand that there is a balance between being able to investigate promptly whilst ensuring enough time is provided for compliance processes and data-gathering to run their course. This will be reflected in Ofgem's approach and related guidance on price investigations and disproportionate pricing. Utilising guidance allows for routine reviews and updates, which is appropriate given the sector will develop and Ofgem will gain further regulatory experience. Transparent guidance will also help market operators in undertaking best practice, amplifying the impact of compliance and enforcement actions. This is important, given there will be resource limitations on how many actions Ofgem can undertake. This also means interventions can be focused on the most damaging cases. The guidance is likely to cover:

- **Approach and evidence:** the possible indicators of disproportionate pricing and the evidence Ofgem is likely to consider when establishing if compliance or enforcement action is appropriate. This could include monitoring of data by Ofgem on network performance, quality of service and complaints, price ranges and cost benchmarking.
- **Process:** we recognise that the sector's diversity means that even if there are indications of disproportionate pricing, these are likely to trigger initial discussions and further evidence gathering, so that Ofgem can better understand the facts of the specific case in line with our general approach to compliance.
- **Assessment:** each case will be considered on its own facts. Similar to publications by Ofgem for other markets, the guidance will encourage heat networks to establish a pricing strategy and be ready to provide evidence and justification for that strategy.²⁹

We welcome views on our approach to guidance and any information and evidence that Ofgem should be seeking where there is potentially a case of disproportionate pricing.

Consultation questions

Q26. What are your views on how Ofgem should approach guidance on price investigations? Do our proposals cover the type of content stakeholders would expect?

Q27. What information and evidence should Ofgem be seeking as part of our monitoring activity to identify where there is a case of disproportionate pricing?

Price regulation

The Energy Bill provides the Secretary of State with powers to direct the regulator to introduce price regulation (for example a price cap or profit regulation) in the future. The government's

²⁹ https://www.ofgem.gov.uk/sites/default/files/docs/2017/05/2017_tclc_guidance.pdf

position remains that the benefits of a price cap or profit regulation are outweighed by the risks to consumers, given the nascent and diverse state of the market and the fact that there is currently no clear evidence of widespread disproportionate pricing. One risk of a uniform cap could be a number of operator and supplier insolvencies. This could leave consumers without heating and hot water. The cap would therefore not be in the best interests of consumers and therefore the government does not plan to introduce such measures right now.

The government will consider introducing price regulation in the future should there be evidence of widespread consumer detriment, and/or as a mechanism to incentivise innovation to reduce costs and encourage growth in a more mature market. In the meantime, the government believes that the best approach is to protect consumers, by giving the regulator the power to address disproportionate pricing in the sector.

Last winter, given the unprecedented circumstances, the government introduced energy price support to consumers and business. We hope this intervention gave the market confidence that when required, government will act in a proportionate manner to protect consumers' interest and the long-term growth of the sector.

Consultation question

Q28. Do you agree that price regulation, such as a price cap or profit regulation, should not be introduced in the near term but that this should be kept under review?

Quality of service and supply of heat

The Heat Networks Consumer and Operator Survey 2022 (HNCOS 2022) provided us with a comprehensive understanding of consumer views on heat networks.³⁰ Responses highlighted that heat networks are regarded simply as utilities, supplying heating and hot water, which ought to provide an affordable and reliable service. Generally there is low awareness and engagement with heat networks by consumers, however this was different for consumers who experienced a disruption or discomfort as a result of their heat network.

Consumers value reliable supply, at the right price and with good customer service. The following sections specifically focus on how we can drive better reliability via Guaranteed Standards of Performance and better customer service via improved complaints handling.

Complaints handling

Complaints handling is a core element of customer service and, combined with an escalation route to alternative dispute resolution (see Consumer redress and consumer advocacy section on page 54 below), allows consumers to express their views and obtain rectification and redress for any shortcomings they have experienced from their supplier or operator. We want consumer complaints to be resolved promptly and courteously. As the sector is currently largely unregulated, we consider standardisation can lead to improvements for consumers. Ofgem will take a power to create complaints handling regulations for heat network consumers via amendment to the Consumers, Estate Agents and Redress Act 2007.

As part of HNCOS 2022, we asked consumers about their experiences of complaints handling and operators about their existing processes. An encouraging three-quarters of operators

³⁰ <https://www.gov.uk/government/publications/heat-network-consumer-and-operator-survey-2022>

reported having a formalised complaint procedure, but there is a lot of variety on how these are operated by different types of heat networks. Most operators provided a phone number and/or email address for consumers to use and these details were most often on all documentation sent to the consumer and/or billing information.

Around four in ten consumers who had complained were satisfied with how this was handled. This was worse than the comparison group (heating and hot water consumers who are not connected to heat networks) and worse than DESNZ's previous survey in 2017.³¹ Interviews with consumers highlighted that barriers to making complaints were usually linked to not knowing who to contact or lack of time or information. Some also talked about concerns of being evicted or difficult processes to claim compensation, which meant people give up. Unresponsive operators were also cited as a barrier to getting complaints resolved.

There is clear scope for improvement in current complaints handling performance. There is a wide body of evidence on effective complaint handling practice, which can be drawn on to improve outcomes for consumers.³² We propose to align complaints handling rules with those existing in gas and electricity, which in turn are very similar to those in other regulated sectors, and disseminate good practice for complaints handling. This would include:

- Standardising the definition of a complaint as an expression of dissatisfaction
- Requiring high level processes
- Requiring that complaints can be made by multiple channels
- Mandatory complaints reporting to Ofgem
- Requiring specific processes for complaints made by consumers in vulnerable circumstances and consumers assisted by consumer advocacy bodies, such as the [Extra Help Unit](#).
- Requiring good practice requirements particularly around communication with the consumer and supporting those with additional needs.

However, we will need to consider further if all these requirements, particularly on processes, should be placed on heat networks. Ofgem plans to provide further detail in a future consultation on complaints handling next year.

Consultation question

Q29. Do you agree with this approach to regulations related to complaints handling?

Guaranteed standards of performance

Guaranteed standards of performance are minimum standards consumers can expect from their provider of essential services. When these are not met, consumers are entitled to payments to recognise the inconvenience caused. However, they are not designed to

³¹ 39% of heat network customers were very satisfied or satisfied with how their complaints was handled, compared to 48% for non-heat network customers. Heat network customer complaint satisfaction in 2017 was 45%.

³² See for example, ORR, <https://www.orr.gov.uk/sites/default/files/2021-08/a-review-of-good-practice-in-complaints-handling-procedures-and-guidance.pdf>; and Ofgem, Complaints Handling Research, 2018, https://www.ofgem.gov.uk/sites/default/files/docs/2018/09/quadrangle_ofgemchs2018_researchreport.pdf

compensate consumers fully for subsequential financial loss. Ofgem will take powers to set Guaranteed Standards of Performance for heat networks via secondary legislation.

These types of standards are common practice in utilities such as gas, electricity, and water, and operate on a voluntary basis in broadband and heat networks through the Heat Trust. Guaranteed Standards of Performance often focus on core elements around making and keeping appointments, supply interruption and restoration, and responses to complaints or other customer service requirements. They are a tool to incentivise regulated entities to provide this minimum level of service that consumers expect from a service that is essential in day-to-day life. If providers cannot meet that service level, they need to provide payments to consumers to recognise the inconvenience.

This section will explore current heat network consumer outcomes, particularly in relation to reliability of supply, which is a core area of Guaranteed Standards. We then move on to a more detailed discussion of the different frameworks that might serve as a model for heat networks Guaranteed Standards of Performance regulation and set out initial proposals.

Reliability is a key factor influencing customer satisfaction with their heat network.³³ Half of all heat network consumers reported having had some loss of hot water or heating in the last 12 months, with most saying this was between one and five times in this time period. This was both higher than the previous survey (37%) and the comparison group (non-heat network – 29%). Heat networks therefore clearly perform worse on reliability than they have in the past and compared to alternative forms of heating. This is supported by evidence from the Heat Trust, which shows that in 2021, a ‘typical customer’ experienced about 6 unplanned interruptions.³⁴

The Consumer Survey shows that the majority of outages last less than 24 hours, with 16% lasting between one and three days. Heat Trust data on duration has shown variety over the years, with the average duration of interruptions significantly higher in 2021 compared to previous years (33 hours compared to 14 hours and nearly 12 hours in 2020 and 2019 respectively).

The survey does not clarify the cause of interruptions, but from the Heat Trust data we can see that many unplanned interruptions stem from Heat Interface Unit (HIU) issues which affect a single dwelling. However, we cannot draw conclusions more widely from this due to a lack of data in the survey.

From interviews with consumers, we know that the personal impact of an outage on consumers depends on various factors, some which are within the control of the heat network operator. Those that are within the control of the operator include giving advance notice of the outage, the duration, as well as the time of the outage. It also matters whether there would be a loss of hot water, heating, or both. Another key consideration for consumers was the timing of the interruption (i.e., less of an issue in summer, rather than winter).

While consumers often felt that outages were frustrating, they were typically planned, short-lived, and fortunately required only small life adjustments. Reasons for this included outages being brief and heating being restored swiftly, advance notice being given or being able to find quick workarounds to loss of heating and hot water.

³³ HNCOS 2022.

³⁴ Heat Trust annual report 2021: <https://www.heattrust.org/annual-reports-v2/59-heat-trust-annual-report-2021/file>

However, certain types of consumers were more likely to struggle with outages or become increasingly frustrated by these, including, those with young children, the elderly, or those who are disabled / living with disabled family members. These groups felt the impact of outages more intensely – at a daily level on their routine and lifestyle, and more fundamentally on their mental and physical health. Higher frustration around outages was usually the result of consumers having experienced a loss of heating for longer periods of time or consumers having engaged with poor customer service or unresolved customer service issues.

While there will always be a risk of unplanned interruptions, we want the regulatory regime to incentivise that the length of these interruptions is minimised and the frequency of interruptions is reduced. Alongside this, heat networks should be incentivised to provide adequate notice of planned interruptions and support those with additional needs who struggle more with interruptions. Almost all rules will apply to all domestic and microbusiness consumers, regardless of the type of regulated heat network they are on. Rules relating to consumer vulnerability and PPM installations are proposed to apply to domestic consumers only.

As part of our analysis, we compared Guaranteed Standards of Performance frameworks for gas distribution and supply, electricity distribution and supply, water, and the voluntary schemes operated in broadband and heat networks (as operated by the Heat Trust, which draws on practices in gas distribution in particular).

Common Guaranteed Standards across sectors relate to:

- Keeping and making appointments.
- Providing adequate notice of interruptions.
- Supply restoration within a set timeframe, and
- Set timeframes to respond to (specific types of) complaints.

Less common standards, which could be relevant for heat networks, include:

- Alternative heating and cooking facilities, or hot food provision for priority customers (gas distribution and Heat Trust).
- Fixing of faulty (prepayment) meters (gas and electricity supply).
- Reconnection after a disconnection (gas and electricity supply).
- Later payment of a Guaranteed Standards payment (gas, electricity and water).
- Reinstatement of consumer premises following work (gas distribution).
- Low pressure or flooding from sewers (water).

Compensation amounts vary across sectors and specific standards, but broadly range from £8.40 (per day for broadband interruption) to £75 (for multiple electricity outages in a year). Some total compensation amounts are capped, while others are not. There is a wide range of approaches that can be taken on payment amounts and we welcome stakeholder views on this.

From this analysis of different frameworks, an assessment of the state of the heat network sector's performance, and consumer experiences, we propose the following areas as core elements that would need to be included:

- Requirement for the heat network to maintain a register of interruption.
- Requirement to have out of hours arrangements to report interruptions.
- Requirements with compensation on:
 - Making and keeping appointments.
 - Providing adequate notice of planned interruptions.
 - Requirement to provide additional support to certain consumers in vulnerable circumstance within a set time period in case of unplanned interruptions, including alternative heating sources.
 - Supply restoration within a certain timeframe, both for unplanned and planned interruptions.
 - Exceeding a threshold for multiple short interruptions in a set time period.
 - Meter repairs within a certain timeframe, particularly if the metering issue means the consumer no longer has access to heating and hot water.

We are keen to gather more evidence on existing practices and compensation amounts before we develop more detailed policy. We therefore request that heat network operators and heat suppliers provide us with details of the Guaranteed Standards, including compensation, that they currently offer to their consumers.

We are keen to keep the initial regulatory framework concise and closely aligned to existing practice in the sector. However, we could build on these standards in the future as the sector matures and we gather more evidence of performance levels in the sector. For example, as set out above, we initially plan to focus on getting complaints standards in place in the sector before we would consider a guaranteed standard on responding to complaints.

Consultation questions

Q30. Do you agree with the proposed core elements of the Guaranteed Standards of Performance?

Q31. Heat network operators and heat suppliers only: Can you provide us with information on the Guaranteed Standards of Performance (with or without compensation) that you currently have in place? Please include those you have placed on external contractors through contract.

Q32. How should guaranteed standards of performance work for heat networks operating on a cost recovery model? How can we avoid consumers paying for their own compensation through higher prices in the future? How can we further incentivise reliability for these networks?

Q33. Do you agree that Guaranteed Standards of Performance should apply to all domestic and microbusiness consumers, regardless of who operates the network? Do you agree that business consumers larger than microbusinesses should be excluded and allowed to negotiate their own service levels and compensation amounts?

Consumer redress and consumer advocacy

As set out in the government response to the 2020 consultation, the Energy Ombudsman will take on the role of Alternative Dispute Resolution body in Great Britain and Citizens Advice will take on the role of consumer advocacy body in England and Wales. We understand that Consumer Scotland will take on the equivalent consumer advocacy role in Scotland. The appointing of the Energy Ombudsman and Citizens Advice will be provided for in secondary legislation.

As well as its existing role in the sector of providing dispute resolution for consumers on Heat Trust schemes, through regulations made under the Energy Prices Act 2022 the Energy Ombudsman has been taking on complaints relating to requirements on heat suppliers to pass on savings from the Energy Bill Relief Scheme and Energy Bill Discount Scheme to end consumers.³⁵ The Ombudsman is therefore well-placed to expand its existing functions within the sector when the regulatory framework comes into force.

Currently, the Housing Ombudsman handles some heat network disputes in England and Wales involving tenants and leaseholders of social landlords when their complaint is against their landlord for breaching a contractual obligation to their tenant or leaseholder. For example, section 11 of the Landlord and Tenant Act 1985 requires landlords to keep the dwelling's heating and hot water in proper working order. Failure to do so, such as due to an outage or technical issues, could provide grounds for a tenant or leaseholder to raise a complaint with their social landlord.

The Energy Ombudsman will take on complaints from heat network consumers where their dispute relates to a breach of heat networks regulation, and it will take on all heat network related complaints against suppliers and operators.

There are likely to be some situations where the Housing Ombudsman and Energy Ombudsman's remits will overlap. For example, if a consumer suffers an outage, in future they may have recourse to both the Housing Ombudsman and the Energy Ombudsman. It will be important to ensure that consumers are directed to the Ombudsman most suited to consider their complaint and that they are not granted the right to ask multiple Ombudsman services to investigate the same issues.

As is the case for retail energy, the Energy Ombudsman and Housing Ombudsman will work closely to ensure efficient and accurate cross-referring of cases. They have been sharing anonymised case studies that each scheme currently receives and looking at potential areas of crossover. This is with the aim of coming to an agreed approach as to which Ombudsman is the most appropriate in resolving different complaints, meaning complaints can be redirected promptly where needed.

Market-led step-in arrangements: reducing the risk and impact of market failure and ensuring continuity of heat supply

If a heat network were to fail, it is vital that there are adequate arrangements in place to ensure that consumers have a continued source of heating and hot water. It is also important to ensure that heat networks are adequately managing the risk and impact of failure.

³⁵ <https://www.gov.uk/government/publications/energy-bills-discount-scheme-ebds-scheme-documents/energy-bills-discount-scheme-heat-network-supplier-guidance>

In a scenario where a heat network had failed and a commercial outcome had not been successful, there are a range of possible interventions that could be used to ensure consumers stay on supply, which we have collectively called ‘step-in’. This broadly covers existing obligations, for example, in housing legislation, contractual requirements which identify another party who will ensure continued provision of service, or a possible regulatory backstop.

The three circumstances in which such arrangements may be required are:

- Insolvency of the regulated entity.
- Persistent poor performance or consumer harm leading to revocation of authorisation for consumer protection reasons.
- Persistent poor performance where this is due to technical deficiencies of the network that the current regulated entity is unable to address.

This is a complex area, not least because of the range of circumstances that might trigger step-in arrangements and the risk of consumers being left without heating suddenly.

It is likely that both the risks and nature of step-in arrangements will vary according to circumstances of heat networks. The ownership of the scheme and who is the regulated entity will also affect arrangements, as existing obligations, for example on landlords or social housing providers, may already provide protections for consumers from loss of supply. The detail of step-in arrangements will be consulted on early next year, and this is likely to cover existing protections, contractual step-in processes and requirements, and the design of any safety nets, e.g., a regulatory backstop. The design of any safety-net arrangements is likely to affect the scope or nature of the pre-failure requirements, and we may revisit some of the proposals to ensure the overall framework provides the right protections for consumers.

This consultation seeks views on proposals that are aimed at mitigating the risk and impact of failure on heat network consumers through ensuring the framework consists of appropriate requirements as part of authorisation conditions and encourages commercial solutions.

Outcomes

In approaching step-in requirements and arrangements, it is important the framework delivers the following outcomes:

Effective Financial Monitoring: The approach to the framework, where possible, ensures early identification of suppliers or operators that pose a failure risk. However, the monitoring and reporting is proportionate to the impacts and risks around failure.

Management of Risk and Impact: There are requirements that help mitigate the risk and impact of failure on heat network consumers. Consideration needs to be given to ensuring that heat networks bear the appropriate proportion of risk. Governance, accountability, and control arrangements need to be appropriate.

Encourages Commercial Outcomes: Commercial or contractual outcomes are found where possible, and regulatory intervention is only used where it is essential to ensure consumers are protected.

Adequate Safety-Net Arrangements: There are adequate safety net arrangements for consumers if a heat network fails. These should ensure the continuity of physical heat to consumers.

Gas and Electricity Supply Licence Conditions

In the gas and electricity retail market Ofgem has sought to reduce the risk of failure through the Supplier Licensing Review (SLR), and further proposals are being considered under the strengthening financial resilience work.^{36 37} Ofgem is continuing to consult on financial resilience measures and reviewing compliance of suppliers.³⁸ It will be important to keep this under review and assess their appropriateness for heat networks.

Table 6 summarises some of the protections that are in the Supply Licence that we think could potentially be appropriate for heat networks. It also considers the differences between gas and electricity and where we might approach the obligation differently.

Table 6: Supply Licence Conditions

Supply Licence Conditions	Application to heat networks	Differences
<p><i>Financial Responsibility Principle (FRP) – SLC 4B</i></p> <p>To ensure suppliers act in a financially responsible manner and take steps to bear an appropriate share of their risk</p>	<p>An outcomes-based principle supported by guidance would seem appropriate given the greater diversity of the sector.</p>	<p>The physical assets create different risks which will need addressing, through setting clear expectations about a supplier’s ongoing management of its business specific risks.</p>
<p><i>Operation Capability Principle (OCP) - SLC4A</i></p> <p>To ensure suppliers have, and can demonstrate if requested, that they have the capability, systems and processes in place to enable them to effectively serve their consumers and comply with their regulatory obligations.</p>	<p>An outcomes-based obligation supported by guidance would be appropriate to place an obligation on regulated entities to demonstrate they have the capability and systems to meet regulatory obligations.</p>	<p>This principle could be adapted to make it appropriate for heat networks. It may require guidance setting out interactions with technical standards.</p>
<p><i>Control over Material Assets</i></p> <p>In meeting the FRP and OCP, failure to have sufficient control over material assets, is likely to impede step-in processes.</p>	<p>Control over assets and the ability to transfer will be vital for heat networks. This could be part of FRP and OCP Conditions and guidance.</p>	<p>Key physical and contractual assets will need to be listed as part of the CSCP. It will be important to define assets in the framework.</p>
<p><i>Principle to be open and co-operative with the regulator – SLC 5A</i></p> <p>To incentivise proactive and early engagement where a supplier is experiencing compliance issues, financial difficulty, or where its action or</p>	<p>Open and co-operative should be part of the framework for the wider ongoing regulation of heat networks.</p>	<p>This principle could be adapted to make it appropriate for the heat networks.</p>

³⁶ <https://www.ofgem.gov.uk/publications/decision-supplier-licensing-review-ongoing-requirements-and-exit-arrangements>

³⁷ <https://www.ofgem.gov.uk/publications/policy-consultation-strengthening-financial-resilience>

³⁸ <https://www.ofgem.gov.uk/energy-policy-and-regulation/compliance-and-enforcement/compliance-and-enforcement-improving-energy-supplier-performance-consumers#:~:text=In%20April%202022%2C%20Ofgem%20CEO,performance%20data>

inaction may cause consumer harm.		
<p><i>A Customer Supply Continuity Plan (CSCP) – SLC 19A</i></p> <p>Document setting out clear terms for their orderly market exit.</p>	<p>A similar authorisation condition requiring a similar plan would be appropriate. Guidance is likely to be needed.</p>	<p>As well as orderly exit this should also cover unplanned interruptions. The key physical and contractual assets, as well as the contractual step-in entity should be required.</p>

Ofgem also consulted on options to retain the value of hedges in the event that customers are transferred to a Supplier of Last Resort (SoLR).³⁹ It will be important to follow the development of these proposals as they could be particularly relevant for heat networks.

Some of the SLR proposals were broad measures based around principles, which placed an overarching obligation on suppliers, allowing for different suppliers to meet the requirements in a proportionate way. This may be a pragmatic approach in the heat networks sector, accompanied by reviewing compliance against these obligations to inform any increased requirements, or the introduction of any minimum standards or prescription, if required.

Consultation question

Q34. Do you agree that the proposed Conditions, in Table 6, could be appropriate for heat networks? We are interested in views and evidence on how the Conditions could be adapted for Heat Networks and examples of good practice.

Market-led Step-in

Ideally, a commercial outcome would deliver solutions rather than using regulatory step-in arrangements. For example, a new buyer could be found by the existing operator for the assets, pre-insolvency. The terms and transfer would be handled bilaterally with little or no regulatory involvement. Some reporting requirements may need to be in place to update databases for our general authorisations and our ongoing monitoring, and we would expect the operator to engage with consumers about the impact of the arrangement.

Overall, when designing step-in arrangements, we want to try and minimise the risk of unintended consequences that make finding a market or commercial solution harder or act as a disincentive. This will be considered when developing the detail of the step-in and safety-net arrangements.

Contractual step-in

Our understanding is that contracting arrangements for some heat networks do include provisions designating step-in rights, for example, in some cases this is the original developer. However, these are not standardised and would not necessarily cover persistent poor performance.

As a condition of the authorisation of heat networks, we are considering, where possible and proportionate, that heat networks need to have some contractual step-in arrangements in place. However, further consideration would need to be given to how standardised this could

³⁹ <https://www.ofgem.gov.uk/publications/policy-consultation-strengthening-financial-resilience>

be, given the diversity in the market. We expect these arrangements would be reflected in the networks CSCP arrangements.

This requirement could apply to all new heat networks. There could be costs and issues requiring all existing networks to amend their existing contracts. We are interested in views on making this a requirement for existing heat networks, any challenges for networks and the time scales that will be needed to put these arrangements in place.

The costs associated with putting these arrangements in place need to be balanced against the benefits of avoiding unnecessary regulatory intervention, particularly, if the risk is low and the business is well run. Some allocation of the risk to networks seems reasonable because they are best positioned to manage that risk in most cases. We are seeking evidence of implementation costs to ensure implications of a requirement on different types of heat networks are properly considered.

Identification of a contractual entity should increase the likelihood of a commercial solution. Also, an entity with an on-going interest or who is familiar with the heat network is likely to be well placed to take responsibility for consumer outcomes. It also builds on good practice seen in the market today, as step-in provisions are considered good practice, and these are reflected in the Heat Network Investment Project (HNIP) contracts.⁴⁰

Even if not a mandatory requirement, where it is practical, networks should be encouraged to put these arrangements in place to avoid a two-tier approach and different levels of protection.

In addition to contractual provisions, we are aware there are some existing obligations that identify a third party who may “step in” to secure continuity of supply. For example, the Landlord and Tenant Act 1985 places obligations on landlords who rent properties or oversee a lease of less than 7 years in length to keep in repair and proper working order the installations in the dwelling-house for the supply of water, gas and electricity. This would include on the provision of heating for landlords of communal networks.⁴¹ We are considering the interactions between existing obligations like this and the proposals under the regulatory framework.

Consultation questions

Q35. What are your views on obligations and protections that are currently in place for ensuring continuity of heat supply in the case of failure? If you consider further requirements or a regulatory safety net is required, please expand.

Q36. What are your views on heat networks being contractually required to have a contingency plan in place to ensure the continuity of heat supply? Should this obligation apply to all heat networks, including small networks?

Q37. What are the challenges and costs of placing this obligation on existing heat networks? What timescales or transitional period would be needed?

⁴⁰ A suite of template heat contracts for district heating schemes have been developed under the HNIP; <https://tp-heatnetworks.org/heat-contract-templates/>

⁴¹The Landlord and Tenant Act (1985) places obligations on landlords for the maintenance of communal heating systems. Landlords are obligated to provide tenants (in both the social rented and private rented sector) and those with leases of less than 7 years with access to a reliable source of heat and hot water at all times.

Customer Supply Continuity Plans

This section explores how the obligation for heat networks to have CSCPs should be approached. As a condition of their authorisation, heat networks will be required to produce a plan and a process for maintaining heat in event of sudden failure, and to provide necessary information that would facilitate the smooth onboarding of any incoming new supplier or operator.⁴²

Requiring heat networks to have a CSCP in place seems proportionate given the monopoly position of the networks and consumers' limited ability to switch.

CSCPs should detail key steps for maintaining heat supply, particularly what interim measures would be taken if heat was lost suddenly. The plans also need to focus on having a clear and well-prepared strategy for exit and provide a list of the key physical and contractual assets. The plans could share many of the characteristics of the CSCP proposed as part of the SLR.⁴³

We are seeking views on how to ensure networks have plans in place, and to ensure they are of a sufficient quality. At a minimum we would expect networks to have a CSCP in place, with a requirement to keep it updated, and to submit it to Ofgem when requested. As part of regular reporting, a heat network could self-certify and submit a declaration that it has reviewed its CSCP in the last 12 months, however Ofgem may decide it wants to monitor the prevalence of plans in more detail across the market or at a supplier-specific level through review or audit arrangements. If concerns are identified, it is likely Ofgem would request a heat network's CSCP to ensure the network has the required arrangements and contingency plans in place and that they are being followed.

CSCP Guidance

Guidance could set out the expected content of the CSCP plan to include, but not be limited to, the information and plans set out below. Each supplier's plan would be expected to be proportionate to its scale. Guidance is not provided in gas and electricity regulation, but we recognise there may be value here due the diversity and scale of the heat networks sector.

The plan should reflect the size and complexity of the supplier's business with appropriate governance and oversight from its senior management. It should reflect the ownership and billing structure, and include as a minimum:

Supplier information: Details of arrangements with third-party service providers to ensure continuity of services, billing system information, Priority Services Register (PSR) customer list, customer numbers, and customer payment method information. This could potentially reduce disruption to customers during the onboarding process in the event of a step-in process.

Key contacts: Details of key staff: Directors, Heads of Teams, Senior Officers. Details of key contacts at service providers. This information would ensure individuals are aware of their responsibilities even in the event of supplier failure.

⁴² The CSCPs will work hand in hand with Guaranteed Standards of Performance to encourage good customer outcomes in case of supply issues.

⁴³ Statutory Consultation – Supply Licensing Review, June 2020. Chapter 4:

https://www.ofgem.gov.uk/system/files/docs/2020/06/240620_-_slr_statutory_consultation_final.pdf

Customer account information: Details of the processes that would be followed to prepare a summary of customer debt information and customer account balances. In the event of step-in, it is crucial a potential new entity is aware of critical customer account information.

Data: Details of how to access data sets, and where data sets are held. Details of how the supplier proposes to keep its data sets up to date. Details of methodologies for handing over information and customer data. This is fundamental information for a potential step-in entity and would allow for a smoother transition for customers.

Assets: Details of the key physical and contractual assets. We will want to engage with the requirements and definitions being used under the Scottish Framework to identify key assets.

Consultation questions

Q38. How should Ofgem monitor compliance with the requirement for heat networks to have a CSCP in place, recognising the scale of the sector, number of plans that should be in place and the overall approach envisaged for monitoring and compliance?

Q39. Should guidance be provided on the content of the CSCP? What key things should be covered in guidance? Should there be minimum standards and how might these be different for various types of network?

Protections for consumers in vulnerable circumstances

Adequately protecting consumers in vulnerable circumstances is a top priority for government and Ofgem. This has become even more important with prices being higher than historical levels, and this leading to some consumers struggling to pay their heating bills. The following sections set out proposals for consumers with additional needs, those who might get behind on their bills, and those who might have or will have prepayment meters installed.

Additional needs and priority services

We have previously set out in our Market Framework consultation that one of the outcomes we want the regulatory framework to achieve is that: “*Vulnerable consumers are identified and clear about available support, including protection they will be offered in the event of a supply failure*”.⁴⁴ As an example of a measure we included a vulnerable/Priority Services Register. The aim of such a register and associated services is to allow consumers to effectively communicate with their provider, prepare for potential outages and stay safe. A similar requirement is already in place for heat networks registered with the Heat Trust.⁴⁵

We know from HNCOS 2022 that consumers on heat networks tend to have slightly more additional needs than consumers in gas and electricity (31% for heat networks vs 28% gas and electricity). These needs mostly stem from long term illness (25%), caring responsibilities (5%) and hearing or sight disabilities (4%).

There is also already some good practice in the sector. Nearly four in ten heat networks (39%) who supply domestic consumers currently operate a register for consumers in vulnerable

⁴⁴ See page 59 here

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878072/heat-networks-building-market-framework-condoc.pdf

⁴⁵ See Heat Trust, Scheme rules, section 14,

https://www.heattrust.org/images/docs/Scheme_Rules_March_2023.pdf

circumstances. Many also provide a range of support services, including: priority support in emergencies, advance notice of outages, a nominee scheme (also known as third party billing where another person can receive bills on behalf of the customer), language support, and accessible communication.

We plan to build on existing practice, including in social housing, with the aim of ensuring that all heat domestic consumers have access to the services they need.

We propose to require that all heat networks to have a Priority Services Register (PSR) and to promote this to domestic consumers, where appropriate. For consumers who are placed on the Priority Services Register, to offer specific priority services including:

- A requirement to offer a password scheme or have accessible identification cards (e.g. in large font or braille) that allows consumers to identify genuine representatives from the heat network (e.g. engineers or metering agents).
- Third party billing, where a consumer can nominate someone else to receive and pay bills on their behalf.
- Communication in accessible formats and information on the Priority Services Register needs to be accessible for consumers.
- Offer to take meter readings if the consumer cannot take meter readings themselves (where the heat network is metered)
- Provide information on how to prepare in case of interruptions
- Promptly notify consumers and keep them informed in case of unplanned interruptions (including of likely restoration time and what support is available)

The Priority Services Register and associated services are closely linked to the proposed requirement on heat networks to identify customers in vulnerable circumstances. As a vulnerable circumstance can be transient (eg recovery at home after a hospital stay, or a bereavement), heat networks must keep their Priority Services Registers up to date and promote this in interactions with consumers, to ensure customers can get the priority support they need. Making sure customers can engage with their heat suppliers, stay safe and get adequate information and notice in case of interruptions is critical. We would expect this to be deliverable for large and small heat networks, but would welcome views in particular from heat networks that may have concerns about how they might deliver these obligations and what actions could be taken to enable them to meet the obligations, or what alternative approaches they consider may achieve the same or comparable outcomes.

Consultation question

Q40. Do you agree with the proposal to require heat suppliers to operate a Priority Services Register and provide specific services for consumers who need them? As previously stated, we would really welcome views from networks that would find it particularly challenging to deliver this.

Payment difficulty and disconnection

It is essential that heat network consumers get the protections they need when they get behind on their bills or are otherwise struggling to pay, as has become clear during rises in the cost of living. We want to ensure that consumers who struggle to pay their bills are adequately supported to pay their bills and stay on supply.

We know from HNCOS 2022 that a smaller proportion of heat network consumers pay for heating and hot water separately than non-heat network consumers. For example only 60% pay for heating and hot water separately while 19% pay for heating and hot water with their rent and 13% pay for this as part of a central service charge.⁴⁶ This means that for these groups of customers, non-payment of heat charges is intrinsically linked to rent arrears or service charge arrears, and the potential processes that could lead to reclaiming any owed sums and, in the worst case scenario, eviction or forfeiture of the lease (in the case of leaseholders in England and Wales). **When payments for the supply of heat through a heat network are included in rent or housing payments and not charged separately, housing specific protections related to non-payment of housing costs will apply instead of specific heat networks payment protections.**⁴⁷ We expect this situation to change over time as more meters are installed in individual dwellings.

For the majority who do pay separately for heat and hot water, there are limited protections for non-payment, beyond what the Heat Trust offers regarding a payment reminder, a final demand for payment and re-payment plans. In response to HNCOS 2022, 45% of heat network consumers said that keeping up with heating and hot water costs is ‘a bit of a struggle’. This rose to 62% for those who self-identified as vulnerable and to 64% for those on low incomes or those with a prepayment meter. Consumers who struggled mostly resorted to making savings elsewhere and not using heating or hot water. Approximately 39% of heat networks said they would establish a repayment plan to help consumers who are struggling to pay, 7% said they would remind consumers to pay, and 4% would install a prepayment meter.

Heat Trust data indicates that repayment plans are not common, with less than 10% of consumers who owed money for more than 91 days to their heat provider placed on a repayment plan.⁴⁸ **This is an area of concern and something we want the sector to address as a priority.**

We propose to introduce rules that follow established best practice in gas and electricity which requires providers to be proactive when it comes to non-payment and get consumers onto affordable repayment plans. Alongside this, heat networks should provide advice on how consumers can reduce their usage and should consider alternative payment methods, such as prepayment or third-party deductions from social security benefits, where appropriate.⁴⁹ We will look to apply these rules as broadly as possible, noting that tailored approaches may be required for heat consumers paying through different means, such as through their housing service charges. It is worth noting there are broader protections for people who experience problem debt, who are able to apply for debt relief through statutory programmes for certain periods of time.⁵⁰

Disconnection for non-payment should be a last resort. We want to get to a position where disconnection for debt is extremely rare, similar to the approach in gas and electricity regulation. We have limited evidence on disconnection practices across the sector and would like more evidence on this. As a starting point we are exploring the existing Heat Trust Practice which offers specific protections for certain consumers in vulnerable circumstances during the heating season (usually October to March). We also want to use this consultation to gather

⁴⁶ 81% of non-heat network consumers pay for heating and hot water separately

⁴⁷ These protections for non-payment of housing costs will vary across England and Wales, and Scotland as different rules apply to housing.

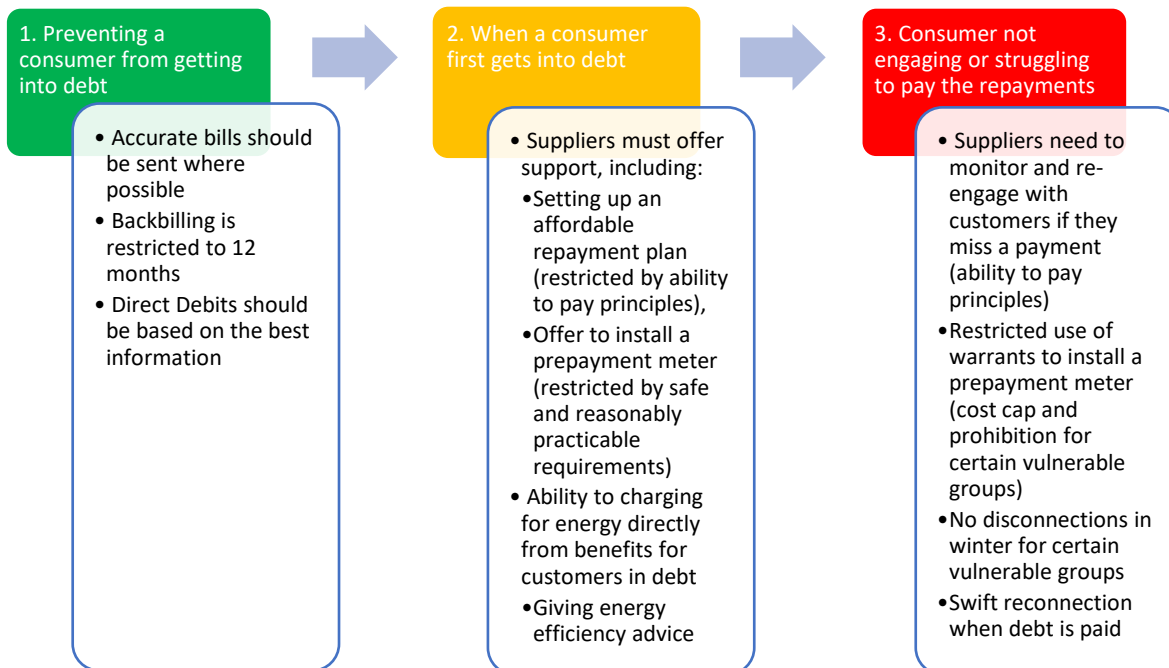
⁴⁸ <https://www.heattrust.org/annual-reports-v2/59-heat-trust-annual-report-2021/file>

⁴⁹ See the section below on prepayment for further detail.

⁵⁰ For more information see: in Scotland: <https://www.mygov.scot/moratorium>; in England and Wales see: <https://www.gov.uk/government/publications/debt-respite-scheme-breathing-space-guidance/debt-respite-scheme-breathing-space-guidance-for-creditors>

evidence on the feasibility of a wider disconnection ban for specific consumers in vulnerable circumstances beyond the heating season, such as those who are medically dependent on heating and hot water due to medical conditions and households with young children. We would be keen to receive feedback from stakeholders on whether this is something we should explore further, as due to the local nature of heat networks, this might have a disproportionate effect on other consumers on a small network and could create cash flow issues for heat suppliers. There are also clear interactions with any wider government proposals on wider retail energy market reforms. We also propose a strict requirement on swift reconnection after a debt has been repaid.

Figure 10: Potential debt pathway when paying for heating and/or hot water separately



Consultation questions

Q41. Do you agree with our approach to drive good debt management practices and deter disconnection? Do you agree that assessing ability to pay and offering tailored repayment plans is possible for small heat networks operated/supplied by small entities?

Q42. What is your current policy/process for debt management and disconnection? Please provide us with information on the number of disconnections, and outline whether your approach varies across networks (eg unmetered/metered, smaller/larger heat networks). Is there anything specific you can share on how you approach customers who might be in vulnerable circumstances?

Q43. What do we need to consider when exploring a disconnection ban for the sector? We welcome evidence you can provide on benefits to consumers in vulnerable circumstances (including what groups of consumers should be protected), impacts on wider consumers (including specific financial impacts on other consumers on the network), and impacts on heat suppliers (for example with regard to cashflow and financial stability).

Q44. Do you agree that non-payment of heat charges when part of housing charges should follow housing non-payment protection rules?

Payment methods

HNCOS 2022 found that monthly direct debit payments (58%), payments based on actual heat use at an individual or building level (15%) and pre-payment meters (12%) are the most common payment methods. When it comes to billing options, HNCOS 2022 found that 23% of operators offer monthly direct debit, 23% offer direct debit paid at other intervals, 21% recover bills through a service or maintenance charge, and 20% offer pre-payment meters. This shows a widespread offering of multiple payment methods, a reflection of the use of both credit and pre-payment meters, the prevalence of unmetered properties, and the inclusion of heat charges in wider leasehold or rental charges.

We do not consider there to be a need to introduce requirements around payment methods for consumers in vulnerable circumstances at this stage, but we will keep this under review and welcome views on what rules or guidance might be appropriate.

Pre-payment meters and use of powers of entry

HNCOS 2022 found that around 12% of consumers surveyed are on a pre-payment meter (PPM), where credit is topped up on a key, card, or online account. We recognise that for many consumers, PPMs can be a useful payment method for managing consumption and debt levels. They can also help heat networks to manage cash flows and avoid larger debts being recovered from a smaller group of consumers on the network. We therefore do not want to discourage PPMs where they are a suitable payment method for both consumer and supplier.

However, there are circumstances where a PPM is not appropriate. The HNCOS 2022 found that PPM consumers were more likely to make savings elsewhere to cover the cost of heat (45% of PPM consumers vs. 28% non-PPM), more likely to opt not to use heating or hot water due to costs (54% vs. 35%), more likely to borrow money to pay for heating and hot water (26% vs 9%), and more likely to have their heating disconnected after a missed payment (13% vs. 2%). This is concerning given the HNCOS 2022 also found that PPM consumers are more likely to have characteristics which makes them particularly vulnerable to harm if heating and hot water is unavailable or cannot be paid for: they are more likely to have a physical or mental health condition or illness lasting or expecting to last for 12 months or more (42% vs. 30%) and more likely to be in a household with income of less than £16,000 a year (23% vs. 12%). In addition, as mentioned above, the HNCOS 2022 found that most suppliers do not offer a repayment plan, which suggests that PPM installations are being resorted to before other more consumer-friendly measures are explored.

The government found that in the retail gas and electricity sector, over 94,000 prepayment meters were installed under warrant in 2022 and the Energy Security Secretary called on suppliers to stop these forced installations as part of a crackdown on mistreatment of vulnerable customers in the use of these meters.⁵¹ In April 2023 Ofgem launched a Code of Practice on the involuntary installation of and remote switching to PPMs following evidence of unacceptable supplier practices.⁵² Ofgem has recently consulted on translating the Code into

⁵¹ <https://www.gov.uk/government/news/just-three-energy-suppliers-making-up-over-70-of-all-forced-installation-of-prepayment-meters>.

⁵² <https://www.ofgem.gov.uk/publications/involuntary-ppm-supplier-code-practice>.

licence conditions and/or guidance, which will build on existing protections in the conditions.⁵³ We consider that the risks of self-disconnection, self-rationing and other forms of detriment will be similar for heat network consumers as for gas consumers, and therefore considering the applicability of gas licence conditions and Ofgem’s Code of Practice to heat networks serves as a useful starting point.

However, we also need to consider key differences. According to HNCOS 2022, heat network consumers are more likely to be in vulnerable circumstances than non-heat network consumers, suggesting the likelihood and materiality of harm resulting from PPM misuse is greater. In addition, because repair and maintenance costs are often included in heat standing charges, this could make heat network consumers more exposed to build up of standing charge debt compared to gas consumers. It is also likely that small heat suppliers will be more at risk of financial difficulty caused by bad debt compared to large gas suppliers. We have therefore arrived at the following desired outcomes:

- Minimise domestic PPM consumers in vulnerable circumstances resorting to self-disconnection or self-rationing.
- A domestic consumer is only put or kept on a PPM where it is appropriate for that consumer, with a supplier identifying circumstances making a PPM inappropriate before PPM installation or early on during PPM use if already installed.
- Suppliers have sustainable cash flows and, where appropriate, can resort to PPM use to avoid unsustainable debt accrual.
- Suppliers and their third-party contractors only use powers of entry into a communal area or dwelling to force-fit a PPM as a last resort, and not at all if doing so is not appropriate.

We have considered gas and electricity supply licence conditions and Ofgem’s Code of Practice against these desired outcomes. Appendix 4: Prepayment meter policy, summarises where we think we can take a consistent approach, and where we will need to diverge.

These protections would apply to domestic consumers only. Microbusiness consumers have been excluded because we do not expect PPMs to be relevant or common in this consumer class.

Consultation questions

For heat network operators and heat suppliers:

Q45. On your heat networks, do consumers on PPMs pay the same amount as consumers on credit meters? If PPM consumers pay more, please provide more detail.

For all respondents:

Q46. Do you agree with our approach for ensuring that consumers in vulnerable circumstances do not resort to self-disconnection or self-rationing and that PPMs are only used where appropriate for the consumer?

Q47. Should we include financial vulnerability as a required consideration for whether a PPM is ‘safe and reasonably practicable’?

⁵³ <https://www.ofgem.gov.uk/publications/statutory-consultation-involuntary-ppm>

Q48. Do you consider these measures to be achievable across all segments of the market? Please provide rationale.

Q49. Do you agree with this approach to regulation for ensuring heat networks have sustainable cash flows and only install PPMs involuntarily as a last resort?

Transparency of information to the consumer

Approach to metering

This section seeks views on our proposed approach to metering across GB. The objective is to encourage energy efficiency and to improve billing accuracy, billing transparency, and fair cost allocation among customers. This can be achieved by increasing the adoption of meters, with a focus on smart meters.

Currently the HNMBRs require the installation of final customer heat meters in newly built heat networks, and in existing heat networks where it is cost effective and technically feasible to do so. Once final customer meters are installed, heat suppliers must provide transparent, accurate and consumption-based bills to customers. These existing requirements will be replaced by equivalent or strengthened provisions in the new regulatory framework.

The metering installation requirements in the HNMBR only covers the installation of heat meters that measure the consumption of heating, cooling or hot water by the final consumer(s). Metering of heat generation and distribution across a heat network currently falls outside the scope of the HNMBR. Buildings connected to district networks are required to install building-level meters, which track distribution, but meters measuring generation from energy plants are not required.

We recognise that this type of metering is just as important as it enables operators to estimate network losses and efficiency and use this information to undertake more targeted performance improvement work. Enhancing the accuracy and prevalence of metering across networks has the potential to lead to various consumer benefits, including an improved consumer experience. For example, high quality meter data can be used to identify and address flow inefficiencies which often allows the system to better satisfy consumer demands across the far reaches of a network. Further to this, communicating efficiency and performance information to consumers may empower them to engage with their operator, applying pressure for improvements to be made if their network is very inefficient.

We intend to set out proposals for improving metering of heat generation and distribution in greater detail in the technical standards section of our second heat networks regulation consultation later at a later date.

Meter specifications

The HNMBRs do not specify types of heat meters which heat networks should install. Under the new regulatory framework, we propose that **AMI** (Advanced Meter Infrastructure), or ‘smart’ meters, will be installed by default. Proposed smart meter specifications have been provided in Appendix 3: Proposed outcome-based smart meter specification.

We expect that data visualisation opportunities will bring network-level consumption reduction, offsetting higher installation and maintenance costs. Furthermore, facilitating communication of billing and pricing information to customers via either a Heat Interface Unit, In-Home Display

equivalent or digital billing via an application would allow heat suppliers to install meters outside of the dwelling that is being metered, making access easier for installation works and essential maintenance.

While there are some disadvantages of requiring a smart meter as standard, such as additional costs or an increased scope for remote switching to pre-payment mode, we believe the advantages outweigh these but welcome stakeholder views. Risks around remote switching to pre-payment will be mitigated by rules proposed above under 'Pre-payment meters and use of powers of entry'.

We expect that there will need to be a phased rollout of smart meter requirements.

- Phase 1: new build heat networks – all new build heat networks ensure smart meters are installed by default following commencement of new heat network regulation.
- Phase 2: Existing heat networks, who previously were not required to install heat meters, that must install meters as part of proposed changes to the building classes (which is set out on from page 68 onwards) must ensure that those meters are smart. Existing metered heat networks that use AMI that does not comply with newly introduced standards must ensure that meter systems meet those standards.
- Phase 3: Existing heat networks with existing, non-compliant heat meters installed must ensure that once the heat meter has reached the end of its appraisal period under the Cost Effectiveness Tool, it must be replaced with a smart meter. These networks may choose to replace an existing heat meter sooner than this period.

Consultation questions

Q50. Do you agree with our proposal to increase the rollout of individual AMI heat meters? If you disagree, please indicate why, and provide evidence to support this view.

Q51. If yes, are there any functions not in our specification that should be included? If no, would any changes to the specification have a substantial impact on your answer?

Meter Accuracy

Meter accuracy is key as it underpins effective consumer protection measures. If consumers, heat networks, and Ofgem have assurance that a customer making a complaint has a meter that is accurate, that provides a framework for then establishing if rules on fair pricing have been broken. Accurate measurements can also enhance the efficacy of analysis delivered through smart meter functionality.

The OPSS make use of the Measuring Instruments Regulations 2016 (HMF), which implements the EU Measuring Instruments Directive, for all other applicable metrology standards. MIR also sets out compliance and assurance processes that meter manufacturers demonstrate compliance. Until 2019, Heat meters were included in these Regulations but were later removed. Because MIR uses proven compliance processes in addition to setting out accuracy standards, we are proposing to introduce legislation that duplicates these standards and procedures. Additionally, as a large proportion of the UK market is likely to already conform with EU standards, we propose to define accuracy in line with standards that apply across the EU heat market.

We expect that we will need to implement legislation requiring the following measures to implement accurate metering;

Pattern of construction; A Conformity Assessment Body will be appointed to create an approvals framework for heat meter manufacture design, where designs of meters are approved if compliant with the regulations. This will also include production line verification to randomly sample meters coming from production lines and test them for compliance with requirements.

Manner of Installation; creating an approved methodology in which meters must be installed. This can have a substantial impact on accuracy for heat meters, due to the nature of the measuring element on the meter.

Manner of installation will also need to consider meter placement for other reasons; if we were to require newly connected networks (i.e., viable class), and open class networks (where installation wouldn't affect accuracy) install meters in common areas, it would prevent the need to use powers of entry to install, replace, maintain or use PPM settings in private premises.

Consultation questions

Q52. Is it reasonable or technically feasible to require that dwelling level meters be installed in common/public areas outside of that dwelling? If not, why?

Q53. Do you agree that an equivalent approach implementing standards of accuracy and processes for pattern of construction and manner of installation regulation in the heat meters market is proportionate? If no, please provide an explanation and support with any available evidence.

Heat cost allocators

A heat cost allocator is a device that is used to measure the difference of temperature between hot water within a radiator and the temperature outside the radiator. It then uses this to produce an estimate of how much heat is being transferred from that radiator.

Heat Cost Allocators (HCAs) are required to be installed where it is found not to be cost effective to install heat meters under Regulation 6 of the HNMBRs. HCAs are not widely used in the UK or EU; they are primarily used in heritage buildings where there is nowhere that a meter can be installed. Due to the nature of HCAs, their accuracy can vary largely based on the radiator type and manner of installation.

Based on this, we do not believe that any HCA standard would be accurate enough to deliver the policy aims of metering. However, as there are some buildings where metering may remain impossible, for instance in listed buildings, we propose carrying forward Regulation 6 into the HNMF. This will only be permitted by exception and HCAs will not be a priority focus for the regulatory framework.

Consultation question

Q54. Do you agree with our view that accurate consumption tracking with HCAs is effectively impossible?

Requirements to install meters

We understand that meters help to reduce emissions, improve communications on pricing and billing for customers, and provide insight into network efficiency – enabling improvements to network performance and ultimately reducing energy costs for customers. However, due to low meter installation levels many households do not get these benefits. We are therefore

proposing to increase the number of meter installations required by meter regulations when meter regulation moves to the regulatory framework.

The building classes in the HNMBRs help define the requirements for metering and enable heat networks to determine whether they are required to install heat meters.⁵⁴ We propose to carry forward the ‘viable’ class which requires all new build properties and any building which undergoes major renovations to install heat meters.

We are considering to what extent and in what form the ‘open’ building class should carry forward from the HNMBRs to the market framework. There are two main areas of focus:

- the cost effectiveness test and
- reforming the open class.

The main objective of the **cost effectiveness test** is to help networks to determine whether it is cost effective to install heat metering and billing systems, with a view to ensuring installation costs do not exceed the benefits derived from metering.

However, in the context of recent increases in the cost of heating for most heat networks, we have been made aware that heat networks may struggle to receive a negative cost-effectiveness assessment. This is because the test compares the cost per gas unit suppliers buy at to the cost of meter installation to generate an outcome. We have also received feedback from some heat suppliers that the test’s assumed carbon saving of 10% (which is based on European heat meter installation) is substantially smaller than real-world savings.

However, we do not have a robust evidence base in which to develop potential approaches and to assess changes against, and examples provided by the industry are small-scale or single network case studies. The HNCOS 2022 did not seek feedback on the tool. We are therefore seeking views from the heat network industry on the potential reform or revocation of the cost effectiveness tool and the open class.

We have identified three options for increasing the scope of meter installation. We welcome views on these options:

- Amend the tool to account for additional energy saving benefits and the social value of metering.
- Narrow the scope of the Open building class to only consider heat networks where additional works would be needed to implement metering, or there are other barriers to compliance (for example, a listed building).
- Remove the Open building class entirely, moving heat networks currently in that class to either the exempt or viable class, depending on the network’s age and type.

⁵⁴ Regulation 4 of the HNMBRs defines building classes: **Viable:** buildings in the viable class must have individual heat meters installed; **Open:** buildings in the open class may or may not have individual heat meters installed depending on the results of the cost-effectiveness assessment and whether it is technically feasible to install; **Exempt:** buildings are not required to have individual heat meters installed.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/941673/heat-networks-guidance-on-metering-and-billing-regulations-2014.pdf

Removing or reducing the scope of the open class would help to clarify requirements, reducing the administrative burden on the majority of heat networks by removing the need to use a cost effectiveness tool to determine their obligations.

Additionally, the variables used in the existing cost effectiveness tools are based on EU legislation. With the United Kingdom's departure from the European Union, we can now consider expanding the range of factors that are used in determining cost effectiveness of meter installation, including social value.

However, we still intend to take a pragmatic, proportional, and benefit-based approach to implementing meter policy, as we are aware that costs will be passed to consumers. We are also conscious that building classes were introduced in the 2020 Amendments to HNMBR based on feedback from stakeholders.

Following those consultation responses, a two-year implementation period was introduced, providing two summer periods to carry out installation works. We propose that the same implementation period is given for heat networks who would have new meter installation obligations as part of these reforms.

Consultation questions

Q55. Is the cost effectiveness tool fit for purpose, and should we continue using a similar tool for meter installations? If you think we should retain the tool, what changes do you think could be made to the tool? How would these changes increase meter installations in existing unmetered networks?

Q56. Do you agree that the Open class of existing Regulations should be either reformed or revoked? If not, please explain why, if possible, providing evidence to support your views.

Transparency of information during residency

This section seeks views on requiring heat networks to provide information to consumers during residency. The accuracy, transparency, and frequency of information that goes to consumers is key in determining their experience. Informing consumers of the terms of their heat supply improves their understanding of the quality of service they can expect, and what they can do if those terms are not met. Providing consumers with regular bills that are accurate and informative, together with heat meters, empowers them to take steps to optimise consumption behaviours that help reduce household costs and carbon emissions.

Data on how successful the sector currently is at ensuring transparency of information indicates a mixed picture. The HNCOS 2022 found that 70% of respondents receive a bill or equivalent and that 70% believe their bill contains the right amount of information. These promising findings are to be expected considering existing billing requirements under the Heat Networks (Metering and Billing Regulations) (HNMBR).⁵⁵

On the other hand, only 35% of HNCOS respondents received a heat supply agreement for the supply of heat when they moved into the property and only 40% were provided with information on who to contact in the event of a heat outage. Heat Trust data also shows that billing and charges are the main reason for complaints against registered participants.⁵⁶

⁵⁵ <https://www.legislation.gov.uk/ukxi/2014/3120/made>

⁵⁶ Heat Trust: Heat Network related documents: <https://heattrust.org/resources/113-heat-network-related-reports>.

We therefore propose mandated minimum standards on the transparency of information to consumers during residency. Existing billing requirements in Regulation 9 and Schedule 2 of the HNMBR will be retained and incorporated into the authorisation conditions.⁵⁷ In addition we propose to add several requirements to enhance consumer protection and achieve the following outcomes (*Appendix 2: Transparency of information to the consumer proposals* provides detail of the proposed requirements):

- Clear and accurate information for consumers on terms for the supply of heating, hot water, and cooling.
- Clear and accurate billing for consumers, who understand what they are paying and are likely to pay in the future.
- Consumers have a choice of payment methods and are protected from unfair barriers to switching payment methods.

Though we want all consumers to receive these outcomes, we recognise that the rules need to reflect the diversity of the sector. For example, billing practices can differ from other regulated sectors due to the more limited use of metering and the fact that some consumers' heat bills form part of wider utility or housing bills. While the proposed modifications to the HNMBR metering requirements will seek to increase the proportion of metered heat networks, there will still be unmetered properties.

Rules therefore need to work with other ways that consumers pay for heat charges, for example through rent or service charges. Often the heat charge within rent or service charges is partly based on individual or collective (e.g., building-level) consumption, or other metrics agreed in the lease or rental agreement. As a result there will be exceptions to billing rules:

For consumers on pre-payment meters, regulated entities should provide, at a minimum, an annual account statement. This statement will outline heat consumption from the last 12 months and provide a projection of how much heat may be used over the next 12-month period if consumption remains consistent. Consumers should also receive the same contact information for organisations who can provide support, financial advice, and energy saving and efficiency advice.

For consumers in unmetered properties, where heat costs will continue to be billed through a service charge or rent, we are proposing new rules to boost transparency. HNCOS 2022 found that consumers whose usage was estimated (due to lack of personal meter) were often frustrated and wanted to see more accurate information. Unmetered networks are therefore expected to employ the same billing, transparency, and price communication principles as metered networks unless unreasonable to do so. At a minimum, bills for consumers in unmetered properties should provide:

- The heat charge for the relevant period.
- A clear and understandable explanation of how the bill has been calculated, by, for example, disclosing a breakdown of the building's fuel input tariff alongside how the bulk meter reading has been apportioned per consumer.

⁵⁷ These rules apply to all metered properties and require that heat suppliers ensure that bills and billing information are accurate and based on actual consumption. Billing information must include current energy prices charged, information about the final customer's energy consumption, and where available, comparisons of energy consumption against the same period the previous year.

- The final due date for payment, and the acceptable methods of payment.
- Contact information for organisations who can offer support if the consumer is struggling to pay the bill, including Citizens Advice and Advice Direct Scotland.
- Contact information for organisations who can provide information and advice about energy efficiency improvement measures.

These proposals should improve consumers' understanding of what they are paying for and enable them to challenge costs they consider unfair or unreasonable and align with wider government intentions to improve service charge transparency.

Back-billing protections

As set out in the 2020 consultation, we are intending to introduce protections that ensure consumers will not be billed for heat that was consumed more than 12 months before the bill is issued. This includes situations where a supplier increases the consumer's direct debit as it was set too low and will apply to both variable and standing charges. These protections will apply to domestic and microbusiness consumers.

We have heard from social housing providers in England that 12 months would be an inappropriate timeframe given this would be inconsistent with existing 18 month back-billing requirements on service charges in the Landlord and Tenant Act 1985. On the other hand we have also heard that a 12-month timeframe could create issue for existing metering and billing methodologies in social housing. We welcome further views on this as part of responses to Q58 below.

Price change notifications

We will introduce requirements around the method, minimum notice period and minimum information requirements for when a regulated entity changes the price of heat to a domestic or microbusiness consumer. We propose requirements that build on Heat Trust Scheme Rules.

From the outset, regulated entities must provide the consumer with information on the circumstances and process for which heat charges (including standing charges, variable charges, and discounts) may change in future. This must be communicated in a clear and transparent way and, where possible, be included in the terms of the heat supply contract, equivalent contract, or deemed contract with the consumer.

We will introduce notice periods by which regulated entities must provide to consumers in advance of heat price changes and the ending of a fixed term contract.

More detail can be found in Appendix 2: Transparency of information to the consumer proposals.

Heat supply contract requirements

If a regulated entity supplies heating, hot water or cooling to a domestic or microbusiness consumer (heat supplier), it must do so under a heat supply contract, the equivalent of a heat supply contract (e.g., terms in a lease or tenancy agreement), or a deemed contract (e.g., if a heat supplier is not made aware of a new resident moving into a property it supplies). The contract must include key information such as the price of heat for the consumer, the quality of service standards that will be met, and routes to consumer redress. A full list of requirements is set out in Appendix 2: Transparency of information to the consumer proposals.

Consultation questions

Q57. Do you agree with the proposed rules on billing information, frequency, and method?

Q58. Do you agree with the proposed rules on back-billing, price change notifications, and heat supply contracts?

Transparency of information pre-property transaction

As set out in the 2020 consultation, we propose a package of measures to ensure that a minimum amount of information is available to prospective residential heat network consumers prior to and during a property transaction, such as buying or renting a property. The desired outcome is to make prospective customers aware when a property is being supplied by a heat network, what a heat network is, key implications of living on a heat network, estimated usage and price of heat in the property, and the heat source and carbon emissions.

As summarised in the [Government Response to the consultation](#), there was clear support for a minimum level of information to be provided in the pre-contractual stage of a property transaction.

The HNCOS interviews also show that generally the heating system has a low priority in the decision-making process when choosing a property. Coupled with a low awareness of, and knowledge about heat networks, those looking to rent or buy a property are unlikely to enquire further about the heating system. Similarly, professionals involved in a property transaction, such as estate agents or surveyors, may have low awareness of and knowledge of heat networks.

Solutions to these issues will need to be implemented across England, Wales, and Scotland because of devolved competences but we are working collaboratively with the governments of whole country to achieve this.

We consider there are three types of information that prospective heat network consumers will need, all of which are covered in this section:

- General heat network information, such as what a heat network is;
- Information about the specific heat network supplying the property, for example the heat supplier and contact details and heat source;
- Property specific information such as estimated use, cost and carbon emissions.

Energy Performance Certificates

An Energy Performance Certificate (EPC) can be accessed on the EPC Register for a specific property. They must be provided during a property transaction (new and existing properties and both homebuyers and tenants) and, in England and Wales, are the only existing option for ensuring the provision of information directly to a prospective customer during a property transaction, prior to signing a contract. An EPC contains descriptive information about a property's heating and hot water system as well as standardised modelled elements such as energy use, heating costs and carbon emissions. In Scotland, the EPC is part of the Home Report, which is provided by the seller of an existing property. The Scottish Government is considering requiring similar heat network-specific information in Home Reports.

The government is currently working on proposals for improving EPC metrics, and intends to consult on these, taking account also of recently published proposals from the Climate Change Committee. The Government also has a continuing programme of user research to improve the way in which information is presented on certificates. EPCs are devolved, with England and Wales using the same EPC format and EPC Register while EPCs in Scotland have a different format and the EPC Register is separate. We are working with DLUHC and the Scottish Government support consistency in the approach across GB and are part of the wider work on planned reforms to EPCs and its metrics. The Scottish Government published a separate consultation on EPC reform and metrics week beginning on 23 July.⁵⁸ A consultation on proposed reforms to EPCs in England and Wales is planned for later this year.

In a property where the heating and hot water system is supplied by a heat network this is currently described as a “community scheme”.⁵⁹ We intend to standardise this to “heat network”, which returns relevant heat network information from online searches (such as gov.uk, Heat Trust, and Citizens Advice) which “community scheme” does not.

Where a property is supplied by a heat network, we further propose to include a signpost on the EPC to externally held information that provides a prospective customer with more information about heat networks. This could be a link to general heat network information, such as that provided by Citizens Advice, or central information published by Ofgem, and would need to be available in different formats to be widely accessible. This would tie in with the minimum information requirement under the authorisation conditions for a heat supplier or heat network operator (the regulated entity). See *Minimum information requirement on heat networks* on page 75 below. This would mean that where the heating system is a heat network, the prospective customer can access relevant information about the heat supplier and the heat network during the property transaction. Our initial view is that there may be benefits, if technically feasible, to link the EPC to the Ofgem database. However, the database development is at an early stage and we would have to carefully consider a range of issues including the data solution’s functionality and regulatory burden to assess feasibility.

We are investigating opportunities for equivalent changes to the Simplified Building Energy Model to provide microbusiness consumers with equivalent transparency of information as domestic consumers.

Signposting in existing sources of information

In addition to EPCs, we are working on a range of non-legislative, low-cost measures which are intended to raise awareness of heat networks and provide signposts to further information for new and existing properties.

We are working with the DLUHC to include heat network related information and signposting to further information into their ‘How to...’ series. These are aimed at residential customers and include guides for buying, renting, and leasing, as well as a letting guide for landlords. These documents are free and can be accessed online.

All landlords and letting agents must ensure they provide the latest version of the ‘How to Rent’ guide to their tenants when they sign their tenancy agreement. The guide provides information and signposting to useful materials at different points of the tenancy journey.

⁵⁸ <https://www.gov.scot/publications/domestic-epc-reform-consultation/>

⁵⁹ Standard Assessment Procedure (SAP) conventions include this definition.

The 'How to buy' guide is currently being revised and will include a suggested question on heat networks to ask the estate agent, an explanation that a service charge may include charges for the supply of heat, and a link to Citizens Advice online heat network resources. We propose to continue to work with DLUHC to include the same kind of information in other guides when they are being revised.

Furthermore, we are working with the Law Society which owns the Property Information Form (TA6) to include heat networks within the information on connections to utilities for the conveyancing process, as well as the voluntary leasehold form (LPE1) used to collect a range of information about a leasehold property prior to a purchase.

We plan to work with estate agents, conveyancers, and property platforms to support the inclusion of basic heat supply information in property adverts on a voluntary basis. More detailed information as part of the advert, such as on pricing, terms of service, or emergency contacts would not be proportionate or comparable to non-heat network properties and is information included in heat supply contracts.

Similarly, other well-regarded organisations providing online tools for property transactions could include basic information and signposting. We plan to explore how to make other parties involved in a professional capacity in property transactions (for example, surveyors) more aware of heat networks and available information to ensure prospective customers have received necessary information prior to signing a contract. We consider Codes of Practice a good starting point for engagement.

To support all of the above mentioned information dissemination, we are considering whether a heat networks factsheet, either owned by DESNZ, Ofgem, or the consumer advocacy bodies, could be developed and provided to organisations and individuals involved in property transactions.

Minimum information requirement on heat networks

We recognise that in most cases, the heat supplier and/or heat network operator will not engage with a consumer until they have moved into a property under a lease, rental or other agreement. We therefore do not expect heat networks to be directly involved in pre-contractual engagement but consider that suppliers and operators are best placed to produce a lot of the information which estate agents, surveyors, and others could use when engaging with prospective consumers.

We are therefore exploring the feasibility of introducing a minimum information requirement on the regulated entity. We are mindful of keeping the burden to a minimum and ensure the requirement works across the wide spectrum of organisations that are heat suppliers or heat network operators. For example, this could be achieved by enabling supplier and operators to repurpose information that they will already need to include in bills and heat supply contracts. However, several practicalities will need to be considered further, including whether this would be suitable as an authorisation condition and how we could ensure that this information, after having been passed from the supplier or operator to the developer or estate agent, is then passed onto the prospective consumer.

Should we proceed with this approach, the minimum information could include:

- The name of the heat supplier/network operator and contact details

- Principal heat source or the mix of heat sources (including percentages)
- Information on tariffs and pricing
- Standardised set of information on contractual arrangements

We are currently exploring a potential minimum information requirement related to the development of new heat networks supplying properties in new developments. These are frequently sold ‘off plan’ with the heat network not yet operational and therefore would not be subject to authorisation conditions. We are considering whether a standardised set of minimum information could be included in the context of the Heat Networks Technical Assurance Scheme and welcome views as part of responses to Q59.

Consultation questions:

Q59. Do you agree that this package of measures on pre-contractual transparency will provide prospective consumers with sufficient information prior to and during a property transaction? What other information and mechanisms for providing that information should we explore further?

Q60. How can we ensure pre-contractual transparency for prospective consumers in new developments?

Protections for small-medium sized enterprises

Ofgem regulation will bring in wide ranging consumer protections for all domestic consumers and micro-businesses across GB and we are considering what protections should apply to SMEs. Previous decisions in response to consultations have largely left open the question about what protections should apply to SMEs.^{60 61 62} In developing our approach it is important we strike the right balance between providing protections for those who need them with the objective of designing a proportionate framework.

Protections for non-domestic consumers in gas and electricity regulation are limited and focus largely on ensuring transparent billing practices, fairness of deemed contract terms, rules to enable transfer of suppliers, and some safety and dispute settlement provision. This is because businesses are in a stronger position to negotiate their own prices and terms of service with their supplier than domestic consumers are. Businesses’ contractual arrangements should also provide adequate routes to redress and therefore regulatory protections are not as crucial in determining outcomes.

However, recognising the monopolistic nature of heat networks and the increased pressures many businesses have faced during the energy crisis, we are seeking views from stakeholders

⁶⁰ A microbusiness will be defined as a business that meets either of the following two criteria:

(1) it consumes less than 247,000 kWh of heat per year; or

(2) it has less than 10 full-time employees or an annual turnover of less than £2 million.

This definition is based on gas and electricity’s definition of microbusiness but has been tailored to reflect that consumers buy heat and not gas. Setting the threshold at these levels will help ensure policy interventions are targeted towards those most in need of support while still ensuring that larger businesses retain the flexibility to negotiate on their own behalf.

⁶¹ Page 22 -

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1043640/heat-networks-market-framework-consultation-govt-response.pdf

⁶² Page 67 -

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1083318/heat-networks-zoning-consultation-government-response.pdf

about whether protections for this consumer class are required and, if so, what those protections could look like.

Consultation questions

Q61. What issues do SMEs connected to heat networks typically face and are issues growing in volume and/or severity? Please provide evidence and reasoning to support your position where possible.

Q62. What consumer protections would you expect to apply to SMEs? Please provide evidence and reasoning to support your position.

Sequencing of consumer protection rules

This section seeks views on how we sequence the introduction of the consumer protection rules described in preceding sections.

We want heat network consumers to receive protections as a matter of priority, and so consumer protection rules will be the first elements of the regulatory framework that come into force. At the same time, we recognise that we cannot introduce all rules from ‘Day 1’. In the initial stages of regulating the sector, Ofgem’s compliance and enforcement activity will be limited by a natural transition phase and the lack of a comprehensive database of heat networks from authorisations and notifications, which will come through later. We therefore propose that a selection of suitable rules will come into force in the first year of regulation, with the rest of the rules coming in after the first year. In determining which rules would be suitable for early implementation, we used the following criteria:

Impact: We measured impact in three ways – the scope of a given rule (i.e., how many consumers would benefit if we introduced a given rule), the extent to which a rule would remedy known consumer detriments, either for most / all consumers or a subgroup (e.g., vulnerable consumers), and how quickly a rule would lead to improved consumer outcomes. The level of impact a rule can achieve is linked to its deliverability, as if it is not enforceable, it will not have the desired effect.

Deliverability: We want to introduce rules which do not rely heavily on comprehensive industry data, reporting, and/or Ofgem compliance activity, given these will not be entirely available during the first year of regulation. This leans us towards rules which can be monitored through other means, such as consumer reporting / complaints, information from the Energy Ombudsman and Citizens Advice, and rules that are visible without extensive market monitoring. Linked to this, we also favoured measures which provide for useful market data collection which support future implementation of rules.

Regulated entity engagement: many heat networks will need to familiarise themselves with regulation and make adjustments to ensure compliance. Introducing some rules during the initial period could allow networks to be eased into operating in a regulated sector. There could therefore be merit in early introduction of rules which mean that all networks must do something to bring themselves into compliance and closer to the end goal of compliance with all consumer protection rules. As an example, rules on outages will only require unreliable networks to act, and only when there is an outage. In contrast, rules requiring networks to produce a Priority Services Register would require nearly all networks to act and would prepare them for when regulation requires them to expedite alternative heating to PSR consumers.

Consumer empowerment: Regulation will enable consumers to act when they are not receiving good standards and fair prices, such as by raising a complaint with their supplier or the Energy Ombudsman or turning to Citizens Advice. To do that, consumers will need to be provided with key information, such as implications of being on a heat network and quality of service standards that their supplier must uphold. We therefore think there is merit in introducing transparency of information rules during the first year of regulation so that, by the time the period ends and all protections kick in, consumers have the information they need to empower them to act.

Based on these criteria, we consider the following rules and activities to be suitable for coming in during the first year of regulation:

Table 7: The first year of regulation

Area	Rules / activities
Pricing	<p>Requirement on sector to provide Ofgem with data: This could be as part of the authorisation notification (i.e., a supplementary reporting requirement) or a mandatory Ofgem Request for Information, with information feeding through to Ofgem’s central database of prices. This will allow for the development of pricing rules reliant on data as soon as possible after the first year of regulation.</p>
Quality of Service	<p>Overarching standards of conduct: See page 34 for more information.</p> <p>Complaints handling rules: Heat networks will be required to have complaints processes in place, which we will aim to have in place by the end of 2025.</p> <p>Energy Ombudsman and consumer advocacy bodies: Where heat networks cannot resolve consumer complaints, these can be raised with the Ombudsman. Citizens Advice and Consumer Scotland will conduct information-sharing campaigns.</p>
Pre-contractual information to consumers	<p>Authorisation conditions requiring heat networks to provide basic information to developers and estate agents to pass onto prospective consumers.</p>
Information to consumers during residency	<p>Authorisation conditions on bill transparency, bill frequency, price change notifications, heat supply contracts, and back-billing.</p>
Consumers in vulnerable circumstances	<p>Authorisation conditions requiring heat networks to develop and maintain a Priority Services Register. Protections from payment difficulty, self-disconnection, and disconnection.</p>
Metering	<p>Integration of modified Heat Networks (Metering and Billing) Regulations. Safeguards in relation to the force-fitting of PPMs.</p>

Step-in	Authorisation conditions on financial responsibility and operation capability principles, control over material assets, and CSCP.
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We consider that the following rules and activities should come into force shortly after the first year of regulation:

Price investigations, price benchmarks, and cost allocation rules: Ofgem will need some time to gather data from the sector to inform pricing rules. The first year of regulation will be used to gather this data so that rules can come into force shortly afterwards.

Guaranteed standards of performance: Ofgem will focus on establishing its market monitoring and auditing functions in the first year of regulation which needs to happen before it can determine sector compliance with standards of performance.

Supplier of Last Resort and Special Administration Regime: We will consult on these step-in arrangements later this year.

Consultation question

Q63. Do you agree with the proposed rules and activities for introduction in the first year of regulation? Are there any that you think should not be introduced in the first year?

Q64. Are there any other rules or activities that we should introduce in the first year of regulation?

Monitoring, audit, compliance, and enforcement

To ensure authorised heat networks meet their authorisation and licence conditions, Ofgem will implement a range of tools to identify and address non-compliance, and particularly where this is causing or likely to cause consumer detriment. Interaction between Heat Networks and Ofgem will be primarily through the digital platform, including for reporting monitoring data. Given the number and range of heat networks our aim is that regulation is proportionate, reflecting the risk-based market segmentation approach.

We recognise regulation will be new to the sector and will need time to become fully embedded and therefore expect to adopt an approach to implementation described previously.

Ofgem will implement a range of measures including guidance and notices to communicate and engage with heat networks on an ongoing basis. Ofgem also expects to highlight areas of good and poor practice to ensure compliance with regulation and improve consumer outcomes.

Monitoring and audit

Monitoring

To have an ongoing view of the market and individual heat networks' compliance with authorisation conditions, Ofgem will put in place a monitoring programme. We will assess information gathered to gain an ongoing understanding of consumer experiences and the levels of associated compliance. This will run alongside any monitoring undertaken by the Code Manager for technical compliance.

We propose to develop an ongoing reporting and intelligence gathering process. This will include regular, reporting by heat networks across a range of metrics (including for pricing as previously covered). Data reporting by heat networks to Ofgem will be mandatory, underpinned by legislation and authorisation conditions. This data will be complemented by regularly reported intelligence from stakeholders including Citizens Advice, Consumer Scotland, and the Energy Ombudsman, and more widely through charity groups and local organisations, together with other intelligence.

We note it might not be applicable or proportionate for some segments of the market, for example small networks, to report against all the suggested metrics so we will need to consider segmentation across the market to determine if monitoring metrics should vary. Some consumer protection metrics will not be applicable for heat networks serving non-domestic consumers, such as microbusinesses. The type of heat network that is registered at authorisation will help inform this.

Financial monitoring

Alongside wider monitoring and compliance, financial monitoring will be vital in identifying early issues and risks of failure, but this needs to be proportionate. The financial monitoring approach needs to be developed further alongside the overall monitoring regime including over an implementation period.

It is likely that basic financial data and declarations will be required across heat networks. Where a network is at higher risk of failure and/or would have a high impact in the event of failure, it may be proportionate to request further information.

The basic financial information and declarations collected from across participants could be used to generate some very simple financial ratios through the data platform and data analysis tools available to Ofgem. Where a network is outside the sensitivities of such ratios or depending on its answers to some of the declaration questions, it may be considered for enhanced reporting and monitoring or referred to the compliance team. This, combined with other forms of reporting, will help inform if there are some heat networks that should be subject to more enhanced financial reporting.

Monitoring metrics

The following monitoring metrics serve as an illustration of the sorts of reporting requirements which Ofgem propose to introduce on the sector. This proposed list is not exhaustive, and additional metrics may be included at a later date:

- General information such as type of network, type of consumers (domestic / non-domestic), and number of consumers.

- Metering (total numbers, type including numbers of prepayment meters, and ability to install smart meters assessments).
- Financial data – capital, debt, investment, trading, hedging, and continuity plans.
- Billing (payment methods and frequency).
- Pricing and tariffs (tariff structure, average price, reliability – alongside wider technical reporting to the Code Manager)
- Consumer protection and quality of service – number of consumers on Priority Services Register, number of consumers in payment difficulty, and number of complaints.
- Interruptions – frequency, length, and Guaranteed Standards of Performance payments.

Data will need to be reported for each individual authorised regulated activity, i.e., the operation of an individual network or the supply of heat through an individual network. General information will be required at the point of authorisation, when there is a material change in circumstances, and confirmed / updated annually. We expect some metrics may need to be reported more regularly. Information will be submitted through the digital platform and Ofgem will undertake regular assessments of the information. Ofgem will provide a schedule of the frequency of ongoing information provision and guidance on the monitoring metrics. We will review the approach to monitoring including pricing in light of responses to this consultation.

Ofgem will also make proactive ad hoc requests for information from segments of the market or from individual heat networks as part of compliance or enforcement action where we consider there is an issue where it appears there may have been, or there is, a contravention of the rules in place. We expect heat networks to be open in engaging with Ofgem and to self-report any potential areas of non-compliance and remedial actions.

Over time Ofgem will consider implementing approaches to help ensure there is an effective monitoring regime where heat networks provide accurate and timely data in line with requirements, such as the issuing of penalties for late or inaccurate reporting.

Consultation questions

Q65. Should we take into account different market segments in our approach to general monitoring and compliance and financial monitoring? If so, what factors should we consider?

Q66. Are these the right metrics to ensure we have a picture of heat networks' performance and consumer service? Are there any which should not be included or others which should be included? If so, why? Is there a frequency of reporting for particular metrics which would provide a clear picture of performance?

Audits

Ofgem propose to implement an audit process as part of its approach to regulation. Audits will look at whether heat networks in the market comply with authorisation conditions and other requirements such as technical standards. We expect to base audits on sampling covering different heat network types and market segments, as well as audits targeted at networks potentially causing consumer detriment based on monitoring data and other intelligence. This will help provide assurance that heat networks are complying with regulation. We propose that

these audits are to be undertaken by a qualified independent third party appointed paid by the regulator.

Ofgem will refine the number, structure, and scope of audits as regulation is implemented and provide details in guidance. An initial focus is likely to include a heat network's ability to gather and report complete and accurate data. Ofgem will also have the option of conducting further bespoke audits on networks as part of a compliance case, which may require funding by the heat network.

Consultation questions

Q67. Do you agree with the overall scope of and approach to auditing to support compliance with regulation, including the initial areas of focus?

Compliance and enforcement

Compliance

Ofgem will work to ensure that its approach to regulation is proportionate across the market, working alongside the Energy Ombudsman, Citizens Advice and Consumer Scotland. Its compliance activity will be a mix of proactive assessment and addressing issues when brought to our attention. Our proposals for monitoring and audit are designed to provide efficient processes to oversee a diverse market and target action where required.

Where we have identified areas of non-compliance or where they have been reported, dependent on the nature and scale, Ofgem may open a compliance case. This includes seeking further information if needed, ensuring that actions are being taken by the supplier and/or operator to remedy the issue, preventing repeat breaches and providing redress to consumers (potentially including voluntary redress paid into a fund, administered by an independent body, where a sum is paid to an appropriate charity or voluntary organisation). Required actions may include a commitment to make improvements that support future compliance.

Ofgem expects to publish the outcomes of compliance actions to provide transparency and help other heat networks to identify improvements.

Enforcement

When Ofgem sees widespread behaviour by a heat network in a potential major breach of its obligations and /or leading to serious consumer detriment, or where a heat network does not engage with monitoring, audit or compliance action, we may escalate the case to enforcement action.

Our intention is broadly to align with Ofgem's existing approach to enforcement, mirroring many of the legislative provisions in the gas and electricity sector. Enforcement action would therefore include imposing compliance orders and investigating potential breaches, referring to our contested and settlement procedures where appropriate. It also would include the possible engagement of alternative action, the opportunity to appeal investigation findings and the imposition of penalties. Ultimately in certain circumstances a licence/authorisation can be revoked. We expect to publish enforcement cases. However, we are also building in different provisions which are more tailored to this separate regime, including extending the time for confirming orders and imposing penalties, and further defining the maximum level of penalties to reflect the size and range of heat networks in the market.

Given the number and range of heat networks, we are looking to ensure heat networks can find efficient ways to comply with regulation. To help achieve this, we are considering the case for fixed penalty notices for certain binary non-compliance issue such as non or poor-quality submission of mandatory information. We would expect the value of a fixed penalty to be sufficient to incentivise compliance. These penalties would be paid to HM Treasury.

We recognise that there are some risks with this approach. For example, we need to determine a proportionate value for a fixed penalty based on the type and size of the heat network. This could be done by considering whether fixed penalties apply after several instances of non-compliance. Alternatively, a discount could be applied for early payment or similarly a step-rise in value for non-payment or multiple instances of non-compliance. We recognise that for some heat networks such as not-for-profits, penalties, including fixed penalties, could result in direct cost pass through to consumers.

To ensure that the structure and governance of our enforcement and penalties policies are transparent, we will consult further on our Enforcement Guidelines and Penalties Policy for heat networks, which will then be published.

Consultation questions

Q68. Do you consider that the proposed compliance and enforcement framework is appropriate for ensuring that non-compliance is addressed?

Q69. Do you consider that our penalties policy should include Fixed Penalties as an efficient way of addressing certain non-compliance? If so, what are the main benefits and risks that need to be considered when implementing this approach, including how they would apply to different segments of the market?

Ofgem's administering of the cost recovery regime

The total annual cost of regulating the heat network market is estimated to be £6.5 million a year. DESNZ has decided that the costs associated with regulating heat networks are to be recovered from the heat network, gas and electricity markets, so that all three consumer groups pay similar amounts for regulation.⁶³

All authorised heat network entities will fall under the scope of cost recovery, including entities serving non-domestic consumers. However, as set out in the previous consultation documents, certain areas of policy need to be developed further before it is clear how costs will be recovered, for example the costs of the code manager of technical standards.

As set out in the government response to the cost recovery consultation, there are several outstanding policy questions that need to be addressed. These are:

- Regulation costs in the initial period of heat networks regulation and if these costs should be paid back by heat networks consumers,
- How we calculate who pays what fee, and

63

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1083281/heat-networks-cost-recovery-consultation-govt-response.pdf

- How to best streamline the cost recovery process.⁶⁴

Transition and payback period

The initial period for heat networks regulation will be a limited time at the start of the regulatory framework during which existing heat networks will need to register with the regulator and when certain consumer protections will be in place, as set out in the earlier section on sequencing. During this period, regulatory fees will not be recovered from heat network entities. This is both due to practicalities and a desire to not deter heat networks from notifying. Instead, as a stopgap, costs will be recovered from gas and electricity licensees during the initial period. Our analysis shows that the impact on gas and electricity consumers of funding the initial period is negligible (2 pence per consumer per year) due to the large consumer base they represent.⁶⁵ ⁶⁶ Requiring a payback of this initial cross-subsidy will put disproportionate costs on heat network consumers for very little gain for G&E consumers. It may also make administration of cost recovery more complex and costly unnecessarily. We therefore propose to not implement a payback period.

Consultation question

Q70. Do you agree with our proposal not to implement a payback period if the transition period is funded by the gas and electricity licensees?

Fee apportionment to heat network entities

The regulatory costs in gas and electricity sectors are apportioned based on the number of consumers a licensee has, relative to the total number of consumers. It is simple to calculate, and individual consumers (including industrial consumers) each only account for a small amount of total demand. Consumers are relatively homogenous at such a scale. However, in the heat network sector, the make-up of a consumer base can have a large effect on heat demand. We have explored different approaches including apportioning the fees based on consumer numbers, consumer types (e.g., domestic and non-domestic), total heat consumption or generation, or a hybrid approach. There is a lack of robust data in the sector particularly on heat consumption and generation, which we consider limits our options when trying to calculate appropriate fees.

To ensure we can make robust calculations of the required fees based on available data, we propose to calculate fees on a per consumer basis, where a non-domestic consumer, that is an end user, is classed as one customer. We suggest treating non-domestic consumers in this way for the purposes of cost recovery is justified as they will likely benefit less from the regulatory regime as most of the consumer protection framework (eg on pricing, quality of service and vulnerability are focused on domestic and/or microbusiness

⁶⁴ *Ibid*

⁶⁵ This £0.02 per year is in addition to the yearly regulatory costs of £1.40 (as set out in the cost recovery consultation) to £1.78 (as set out in the updated figures in the Impact Assessment, published alongside this consultation).

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1083281/heat-networks-cost-recovery-consultation-govt-response.pdf

Consultation question

Q71. Do you agree with the proposed method of fee apportionment based on consumer numbers, with non-domestic being classed as one customer? Are there any implementation challenges with this approach?

Implementing an efficient cost recovery process

Due to the large amount of heat networks that we would need to regulate, there would be significant administrative and compliance costs of invoicing and collecting regulatory fees from heat networks. Since the government response to the cost recovery consultation, we have further considered multiple approaches to streamline the cost recovery process and reduce the associated administrative burden, including the imposition of minimum fees, de minimis exemptions, and digital solutions.⁶⁷

Minimum regulatory fee

Imposing a minimum fee reduces the administration complexity by streamlining the calculation of regulatory fees for a segment of the market and increases funding certainty. For example, there is a minimum fee of £500 in place for gas and electricity licensees when Ofgem recovers regulatory fees. We have explored a minimum regulatory fee at different levels with the aim to streamline fee collection and reduce administrative costs. We have found that low minimum fees provide limited administrative benefit and higher minimum fees disproportionately affect consumers on small networks, without there being an obvious amount where these issues are balanced. We therefore propose not to impose a minimum fee.

De minimis exemptions

A de minimis threshold reduces the number of heat network entities that would be required to pay a regulatory fee. Imposing a de minimis threshold reduces the cost and funding uncertainty, as it means that regulatory costs will be recovered primarily from larger networks.

We have modelled various de minimis thresholds to analyse what impact this would have on heat networks of varying sizes. We consider a de minimis threshold potentially as a good way to reduce administrative burden with low impact on the costs to other consumers on networks not covered by the de minimis exemption. A de minimis would rely on heat networks providing Ofgem with good quality data, particularly on consumer numbers (and generally good engagement with Ofgem) to enable confirmation that networks under the de minimis threshold would not need to pay regulatory fees. We will explore this further as part of the Ofgem's digital solution as well as possible alternative payment methods which could make payment of fees most cost effective.

Consultation questions

Q72. Do you agree with our proposal not to impose a minimum fee?

Q73. Should a de minimis threshold be imposed to streamline the cost recovery process? If yes, what are the factors to be considered when calculating the optimal de minimis threshold?

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1083281/heat-networks-cost-recovery-consultation-govt-response.pdf

Q74. What are the benefits, drawbacks, and possible unintended consequences of imposing a de minimis threshold that we have not considered above?

Q75. Do you have a view on how frequently heat networks should pay Ofgem fees, and how heat networks may wish to pay us (ie the payment method)?

Next steps

We welcome responses to our proposals for consumer protection rules for the Heat Network Market Framework. The consultation closes on Friday 27 October.

We will use the responses we receive to further refine our proposals and work closely with stakeholders to explore emerging issues. We will hold workshops within the consultation period to explain our proposals and answer any questions, which will help to improve the quality of consultation responses we receive.

We will consult further on other areas of heat network policy. Further proposals in zoning will be consulted on later this year, while a further regulatory consultation on Technical Standards and step-in will be published early next year. We will continue to work closely with Ofgem and all other parties that will be involved in the Market Framework.

Once the Energy Bill has passed into legislation and we have fully considered feedback, regulations will be introduced to implement the Market Framework. As indicated in the document, we welcome views on how this implementation will be carried out.

In parallel to this work, we will continue to work with the sector to support ongoing investment and encourage parties to follow existing good practice, such as that set out by the Heat Trust.

Consultation questions

Q1. Do you agree with the scope outlined in this section and which networks the regulatory requirements should apply to? Please provide views and evidence to support your position where you can.

Q2. Do you agree with our proposed activity definitions for heat supplier and heat network operator and our assumptions around the organisation of district and communal networks?

Q3. Do you agree with our proposal for the separate authorisation of entities where there is a 'bulk supply agreement' in place and operation / supply for district and in-building networks is split?

Q4. Do you consider that our approach to regulation is suitable for the large number of small networks in the sector?

Q5. Do you consider there to be any consumer protection rules proposed in this consultation that small networks will struggle to comply with? Please provide rationale.

Q6. Do you agree with our proposal to not capture very small building conversions and annexes? What would be the advantages and disadvantages of including them? Are there any other similar scenarios that you believe we should not capture? Please provide rationale.

Q7. Do you agree with our proposed approaches for the authorisation of existing and new heat networks?

Q8. What are your views on the potential use of HNMBR notifications data to support the information provision process for existing heat networks? Are there any specific actions around notifications due this year that you feel could further facilitate this process?

Q9. Do you agree with the proposal to use a mixture of principles and prescriptive rules to protect consumers? Do you agree with our assessment that parts of the sector are likely to want directive rules and supporting guidance to help them comply?

Q10. Do you agree with the introduction of an overarching Standards of Conduct principle for all heat networks? While we expect all heat networks to identify and support customers in vulnerable circumstances, we would be keen to understand if any networks would find this particularly challenging to deliver.

Q11. Do you think we should further consider requirements on consumer engagement and including the consumer voice in heat networks' decision making?

Q12. How often should Ofgem update any public register of pricing data? How often should heat suppliers be required to submit pricing data to Ofgem?

Q13. What are your views on Options 1, 2, 3 and 4 for centralised price transparency? What combination of options would work best? Please provide detail on why a particular combination could work well.

Q14. What do you foresee as the main challenges of each option for centralised price transparency?

Q15. What are your views on a general obligation on heat networks to provide fair and transparent prices, accompanied by rules and/or guidance, setting out minimum expectations, principles, and good practice? We are particularly interested to hear from leasehold arrangements, not-for-profit networks and small players.

Q16. Do you agree with the broad set of outcomes (in the bullet point list on page 41) that would define our expectations on fair pricing?

Q17. We are interested in stakeholder views on the balance between prescriptive rules (setting minimum standards) and general guidance, that could be introduced across all heat networks. Which areas, in Table 4 above and Appendix 1 Fair Pricing - rules and guidance, should be covered in rules, which should be covered in guidance, and which should be left to the market?

Q18. Should cost allocation rules be applied uniformly across the sector, or should there be different rules for different segments? If the latter, what segmentations do you suggest? Please cite examples of good practice for your suggested approaches.

Q19. How are the current tariffs charged by heat suppliers broken down into the components of standing charge and variable charge? What are the variables affecting the cost components and what are their accounting / financial methodologies? We would also be interested to know how very small networks decide how to set standing and variable charges.

Q20. How prescriptive should these rules be? What are the constraints and issues that need to be considered during the transition period and beyond?

Q21. What are the main implementation challenges with the different options?

Q22. What are your main sources of funding for daily operations and general policies for financial management, for example bad debt management and recovering capital expenditures (where relevant/possible)? Please refer to page 98, at the end of the Appendix 1, for a detailed breakdown of information requested. If you operate more than one heat network, do you allow cross-subsidisation between heat networks and if so, what are your policies governing this (where relevant/possible)?

Q23. What gas procurement practices and hedging approaches and strategies do you use (where relevant/possible)?

Q24. What are your views on the proposed benchmarking approaches? Do you agree that Ofgem should develop options 2, 4 and 7? With each approach, what are the main considerations and implementation challenges for the sector that should be considered when developing the methodology?

Q25. What are your views on how Ofgem should approach segmenting the market for price benchmarking? What are the main characteristics that should be considered?

Q26. What are your views on how Ofgem should approach guidance on price investigations? Do our proposals cover the type of content stakeholders would expect?

Q27. What information and evidence should Ofgem be seeking as part of our monitoring activity to identify where there is a case of disproportionate pricing?

Q28. Do you agree that price regulation, such as a price cap or profit regulation, should not be introduced in the near term but that this should be kept under review?

Q29. Do you agree with this approach to regulations related to complaints handling?

Q30. Do you agree with the proposed core elements of the Guaranteed Standards of Performance

Q31. Heat network operators and heat suppliers only: Can you provide us with information on the Guaranteed Standards of Performance (with or without compensation) that you currently have in place? Please include those you have placed on external contractors through contract.

Q32. How should guaranteed standards of performance work for heat networks operating on a cost recovery model? How can we avoid consumers paying for their own compensation through higher prices in the future? How can we further incentivise reliability for these networks?

Q33. Do you agree that Guaranteed Standards of Performance should apply to all domestic and microbusiness consumers, regardless of who operates the network? Do you agree that business consumers larger than microbusinesses should be excluded and allowed to negotiate their own service levels and compensation amounts?

Q34. Do you agree that the proposed Conditions, in Table 6, could be appropriate for heat networks? We are interested in views and evidence on how the Conditions could be adapted for Heat Networks and examples of good practice.

Q35. What are your views on obligations and protections that are currently in place for ensuring continuity of heat supply in the case of failure? If you consider further requirements or a regulatory safety net is required, please expand.

Q36. What are your views on heat networks being contractually required to have a contingency plan in place to ensure the continuity of heat supply? Should this obligation apply to all heat networks, including small networks?

Q37. What are the challenges and costs of placing this obligation on existing heat networks? What timescales or transitional period would be needed?

Q38. How should Ofgem monitor compliance with the requirement for heat networks to have a CSCP in place, recognising the scale of the sector, number of plans that should be in place and the overall approach envisaged for monitoring and compliance?

Q39. Should guidance be provided on the content of the CSCP? What key things should be covered in guidance? Should there be minimum standards and how might these be different for various types of network?

Q40. Do you agree with the proposal to require heat suppliers to operate a Priority Services Register and provide specific services for consumers who need them? As previously stated, we would really welcome views from networks that would find it particularly challenging to deliver this.

Q41. Do you agree with our approach to drive good debt management practices and deter disconnection? Do you agree that assessing ability to pay and offering tailored repayment plans is possible for small heat networks operated/supplied by small entities?

Q42. What is your current policy/process for debt management and disconnection? Please provide us with information on the number of disconnections, and outline whether your approach varies across networks (eg unmetered/metered, smaller/larger heat networks). Is there anything specific you can share on how you approach customers who might be in vulnerable circumstances?

Q43. What do we need to consider when exploring a disconnection ban for the sector? We welcome evidence you can provide on benefits to consumers in vulnerable circumstances (including what groups of consumers should be protected), impacts on wider consumers (including specific financial impacts on other consumers on the network), and impacts on heat suppliers (for example with regard to cashflow and financial stability).

Q44. Do you agree that non-payment of heat charges when part of housing charges should follow housing non-payment protection rules?

Q45. On your heat networks, do consumers on PPMs pay the same amount as consumers on credit meters? If PPM consumers pay more, please provide more detail.

Q46. Do you agree with our approach for ensuring that consumers in vulnerable circumstances do not resort to self-disconnection or self-rationing and that PPMs are only used where appropriate for the consumer?

Q47. Should we include financial vulnerability as a required consideration for whether a PPM is 'safe and reasonably practicable'?

Q48. Do you consider these measures to be achievable across all segments of the market? Please provide rationale.

Q49. Do you agree with this approach to regulation for ensuring heat networks have sustainable cash flows and only install PPMs involuntarily as a last resort?

Q50. Do you agree with our proposal to increase the rollout of individual AMI heat meters? If you disagree, please indicate why, and provide evidence to support this view.

Q51. If yes, are there any functions not in our specification that should be included? If no, would any changes to the specification have a substantial impact on your answer?

Q52. Is it reasonable or technically feasible to require that dwelling level meters be installed in common/public areas outside of that dwelling? If not, why?

Q53. Do you agree that an equivalent approach implementing standards of accuracy and processes for pattern of construction and manner of installation regulation in the heat meters market is proportionate? If no, please provide an explanation and support with any available evidence.

Q54. Do you agree with our view that accurate consumption tracking with HCAs is effectively impossible?

Q55. Is the cost effectiveness tool fit for purpose, and should we continue using a similar tool for meter installations? If you think we should retain the tool, what changes do you think could be made to the tool? How would these changes increase meter installations in existing unmetered networks?

Q56. Do you agree that the Open class of existing Regulations should be either reformed or revoked? If not, please explain why, if possible, providing evidence to support your views.

Q57. Do you agree with the proposed rules on billing information, frequency, and method?

Q58. Do you agree with the proposed rules on back-billing, price change notifications, and heat supply contracts?

Q59. Do you agree that this package of measures on pre-contractual transparency will provide prospective consumers with sufficient information prior to and during a property transaction? What other information and mechanisms for providing that information should we explore further?

Q60. How can we ensure pre-contractual transparency for prospective consumers in new developments?

Q61. What issues do SMEs connected to heat networks typically face and are issues growing in volume and/or severity? Please provide evidence and reasoning to support your position where possible.

Q62. What consumer protections would you expect to apply to SMEs? Please provide evidence and reasoning to support your position.

Q63. Do you agree with the proposed rules and activities for introduction in the first year of regulation? Are there any that you think should not be introduced in the first year?

Q64. Are there any other rules or activities that we should introduce in the first year of regulation?

Q65. Should we take into account different market segments in our approach to general monitoring and compliance and financial monitoring? If so, what factors should we consider?

Q66. Are these the right metrics to ensure we have a picture of heat networks' performance and consumer service? Are there any which should not be included or others which should be included? If so, why? Is there a frequency of reporting for particular metrics which would provide a clear picture of performance?

Q67. Do you agree with the overall scope of and approach to auditing to support compliance with regulation, including the initial areas of focus?

Q68. Do you consider that the proposed compliance and enforcement framework is appropriate for ensuring that non-compliance is addressed?

Q69. Do you consider that our penalties policy should include Fixed Penalties as an efficient way of addressing certain non-compliance? If so, what are the main benefits

and risks that need to be considered when implementing this approach, including how they would apply to different segments of the market?

Q70. Do you agree with our proposal not to implement a payback period if the transition period is funded by the gas and electricity licensees?

Q71. Do you agree with the proposed method of fee apportionment based on consumer numbers, with non-domestic being classed as one customer? Are there any implementation challenges with this approach?

Q72. Do you agree with our proposal not to impose a minimum fee?

Q73. Should a de minimis threshold be imposed to streamline the cost recovery process? If yes, what are the factors to be considered when calculating the optimal de minimis threshold?

Q74. What are the benefits, drawbacks, and possible unintended consequences of imposing a de minimis threshold that we have not considered above?

Q75. Do you have a view on how frequently heat networks should pay Ofgem fees, and how heat networks may wish to pay us (ie the payment method)?

Appendix 1 Fair Pricing - rules and guidance

This appendix is formed of two parts. The first part, the tables below (A1.1 to A1.3), provide further detail on the pricing proposals. The second part provides further questions to help answer question 22.

Tables providing further detail on proposals

Table A1.1 sets out some of the areas where fair pricing guidance/rules could be further explored in relation to performance and Table A1.2 sets out the costs related to financial and business management. For each cost area we set out a description on the relevance to fair pricing and the considerations of the best tool to use – be that prescriptive rules, minimum standards, guidance, or some mix. Please see the next page for the tables.

Table A1. 1: Costs related to performance

Cost Area	Description	Considerations
Network efficiency	Due to monopoly position, we may want to strengthen the incentives on longer term efficiencies and ensuring prices remain fair overtime.	<p>Link to technical standards and whether that already sets minimum standards for ongoing efficiency.</p> <p>Guidance could set further best practice. It will be hard to set additional minimum standards or prescriptive rules, to the technical standards, given the diversity in the types of networks in authorisation conditions.</p>
Site & business comparisons	<p>To understand pricing differentiation between different sites, we may want to set out how the sector might be segmented for price comparison purposes, and what the relevant benchmark might be for different types of heat network.</p> <p>This might cover expectations on some characteristics that might create differences in prices eg, revenues and electricity sales from CHP.</p>	<p>Benchmarking and how we target outliers will be set in guidance. The market is very diverse to set a universal rule. Limiting how high costs can rise could discourage innovation or new offerings eg, low carbon or new type of service.</p> <p>When prices breach a benchmark, we would find it more useful to understand why this was the case, and why, in the round, this could potentially be a better outcome for the consumer.</p> <p>Linked to price investigations on disproportionate pricing, we would expect a heat network to provide evidence of objective justification (legitimate reasons that heat networks may have for pricing at a certain level).</p>
Maintenance and service costs	Costs incurred in relation to maintenance and refurbishment costs, must be efficient and cost reflective if they are being recovered from customers.	<p>These costs are likely to vary by the characteristics of heat networks. Expectations or more guidance on approaches to costs incurred in relation to maintenance and refurbishment costs could be set in guidance to incentivise best practice.</p> <p>Eg Networks could have consumer-based assessment criteria for tendering contracts (ESCo services, metering and billing and maintenance etc). We welcome views from stakeholders on best practice examples or the types of appropriate guidance.</p>
Customer service charges	Following the precedent set in gas and electricity supply licences, consumers should not be charged more for one payment method compared to another, unless this	The pricing differential when using different payment methods is being reviewed under the price cap. Any methodology would be in guidance as might need to be reviewed.

	<p>can be justified by the cost difference.</p> <p>Also, gas and electricity licences prescribe what charges need to be included in the tariff and what charges can be billed separately.</p>	<p>The services and activities that can be charged for can mirror gas & electricity and be listed - this could be set out in authorisation conditions.</p>
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Table A1. 2: Costs related to financial and business management

Cost Area	Description	Considerations
<p>Cost reflective pricing</p>	<p>Networks should regularly review prices and ensure they are cost reflective.</p>	<p>Given the diversity in the market it seems appropriate any expectations would be set out in guidance. This would allow them to be updated regularly.</p> <p>Prices should be reflective of efficient costs of the network, an appropriate quality of service, need to have regard to affordability, and consumption levels of customers.</p>
<p>Rates of return/profit</p>	<p>Reasonable rates of return/profit margins should be made. High rates of return or profit will need to be justified and more likely to attract questions from the regulator.</p>	<p>Networks will have different risk and return profiles. Some type of ranges could be complemented with principles in guidance to analyse rates of return. Metrics for profit analysed could be similar to networks under price cap and other regulated entities.</p> <p>However, it will be important to ensure innovation is not stifled and investment is encouraged.</p>
<p>Hedging expectations</p>	<p>Networks should have a proportionate approach to hedging. To ensure that efficient costs are being passed on to customers.</p>	<p>Networks will have different access to hedging and on different terms. Expectations or guidance might be more appropriate for hedging, as the strategy and approach will be very dependent on the characteristics of the networks. This would have links to financial responsibility requirements.</p> <p>We understand there are some constraints for different networks adopting different approaches. We think it is very likely there are different expectations based on the size and type of heat network.</p> <p>However, some basic good practice could be provided on seeking a number of quotes and considering different</p>

		approaches and hedging strategies. We welcome examples from stakeholders on what good practice or guidance could be applied across the sector or to specific segments.
Restrictions on passing on fines	Penalties linked to failure to comply with Conditions in the wider framework should not be passed on to customers.	Prescriptive rule on the passing on of fines – but need to consider whether exemptions or different approaches are needed for not-for-profit networks. Guidance will only be needed if we provide any routes for exceptions to the rule. This will link to the consumer protection, compliance and enforcement proposals.
Debt management	HNs need to recover bad debt, but they should be managing debt aligned to other proposed conditions. When costs related to bad debt are reflected in prices, we want to ensure the regulated entity has appropriately managed the risks of these.	We expect there to be broad obligation for networks to manage debt. Consistent with this a fair price should reflect efficient debt management practices (among other considerations). The amount of debt incurred and how this recovered via prices will be very dependent on the circumstances of the heat network. It is therefore unlikely we will be able to set a prescriptive rule. However, in guidance it might be possible to set out some good practice. A heat network should be managing the risks of bad debt and not simply passing the cost onto customers.
Capital cost recovery	Consumers should be protected from taking on a disproportionate level of corporate risk and the recovery of capital costs should be efficient from customer perspective.	Heat Networks need to recover capital costs however, there are a range of different approaches. It could be beneficial to provide guidance or best practice on ensuring that the price consumers pay reflect an efficient recovery of capital costs. This is an area for which we are seeking good practice and examples.
Cost subsidisation	How to ensure cross subsidisation is clearly accounted for in prices, so there is transparency in relation to any difference in prices paid by consumers on the same network.	This is an area for which we are seeking good practice and examples.

Table A1. 3: Examples of cost allocation approaches

Country	Standing Charge	Variable tariff/unit charge
Czechia	Asset depreciation	Fuel costs (main component)

	Repairs and maintenance Wages and statutory insurance Rent Financial leasing Production overheads	Purchase of heat Electricity for heat production and distribution Water processing Taxes and environmental charges
Lithuania	Long term assets and long-term asset basis (depreciation and the WACC, or Weighted average cost of capital) are in the regulated asset base (RAB) Grant funds not included in the asset base Costs for employees Administration costs Financial costs	Electricity and water for technical needs Fuel and procured heat Biofuels
Denmark	Return and depreciation (unclear what proportion in standing and variable) Wages Installation	Return and depreciation (unclear what proportion in standing and variable) fuel costs, wage costs
Poland	Cost of ordering heat load Cost of heat Cost of water	Variable cost for heat transmission depends on heat load, type of heat source, araciality of individual heat stations, and other factors.

Further information in support of Q22. ‘What are your main sources of funding for daily operations and general policies for financial management, for example bad debt management and recovering capital expenditures (where relevant/possible)? Please refer to page 98, at the end of the Appendix 1, for a detailed breakdown of information requested. If you operate more than one heat network, do you allow cross-subsidisation between heat networks and if so, what are your policies governing this (where relevant/possible)?’ on page 44.

Standing Charge vs Unit Rate

- What costs are allocated to standing charge and unit rate respectively?
- What factors inform your decision to allocate the costs in a certain way?

Bad Debt

- What is your primary method for recovering bad debt? (spreading over customer base, external funding, cross-subsidisation, if other please explain)
- If recovered from consumers, is this via standing charges or the unit rate?

- Do you allocate provision (ie plan ahead) for yearly bad debts? Yes/No. If yes, please explain how you calculate the provisions.

Capex

- What is your primary method for recovering capex from consumers? Standing charges or unit rates or a mixture?
- How do you plan and estimate the cost of capital expenditures and the subsequent recovery of those costs?
- What is your average timeline for spreading of costs of long-term capital expenditure (expenditure that requires more than one financial year to execute or recover the costs of)?
- What is your primary source of funding for capital expenditure? Recovery from customer, external funding, government subsidy, other (please specify)
- What is the depreciation method and timeline that you use for your capital expenditure?

Appendix 2: Transparency of information to the consumer proposals

This appendix provides detail about the specific billing information, frequency, and method we expect consumers to receive as part of the billing process.

Billing information

Heat networks must take all reasonable steps to reflect accurate meter readings in bills. At a minimum, bills will provide:

- the consumer's heat costs for the period being billed;
- the consumer's energy consumption (in kWh) for the period being billed;
- information about how the bill was calculated, for example, providing a breakdown of tariff rates;
- comparisons of the consumer's current energy consumption with consumption for the same period in the previous year, where available;
- the final due date for payment, and the acceptable methods of payment;
- contact details of the heat network in case there is a query on the accuracy of the bill; and,
- contact information for organisations who can offer support for customers in payment difficulty and organisations who can provide information and advice about energy efficiency improvement measures.

Billing frequency

- The bill shall cover an agreed period however networks must provide bills based on actual metered consumption at least once per year.
- Where meters have Automated Meter Reading functionality, networks must take all reasonable steps to use a meter reading each month.
- Bills must be sent out promptly following the end of each period and customers must have at least 31 days prior notice of any changes to planned billing dates.
- Networks should also provide an annual account statement totalling the consumers heat costs for that 12-month period. This annual statement will include billing information noted above.

Billing method

Consumers must be able to understand their bills and options for paying. Consumers therefore should be offered options about how bills are received, for example, as paper copies or in electronic format. Where a consumer requests online account management, networks must comply with the request if they have those platforms in place. When communicating with consumers about options to receive bills, heat networks will consider any requirements,

vulnerabilities, or constraints communicated by the customer to the heat network. This may include, for example, providing billing information in braille or larger font.

Price change notifications

We propose the following principles for notices of upcoming heat price changes and ending of fixed term contracts:

- The notices must contain sufficient information enabling the consumer to understand the change(s), the main reason(s) for the change(s), and any potential implications, including financial implications.
- A notice must set out when the change(s) take effect.
- A notice must set out the consumer's rights and available options relevant to the changes.

These principles will be supplemented with prescriptive rules on these notice periods.

Regulated entities must notify a consumer of a change to heat prices in writing a minimum of 30 days in advance of the change taking effect. Changes to the price a consumer pays shall be limited in frequency to no more than once every six months.

Regulated entities must ensure that a consumer is provided with prior notice of the end of a fixed term contract for the supply of heat, with a clear explanation of what would happen if there is no consumer action at the end of this contract (e.g. whether they would automatically move onto a new fixed term contract), how standing and variable charges would change following the end of this contract, any options for renewal of the existing fixed term contract, and other types of fixed term contract (e.g. different tariffs) available to the consumer. This information must be provided to the consumer a minimum of 30 days in advance of the fixed term contract ending.

Heat supply contract requirements

The contract must include the terms and conditions for the supply of heat, including:

- the charges for the supply of heat to the consumer (see 'Billing information' section for more detail on the information that needs to be provided);
- where possible, circumstances in which the charges for the supply of heat might change in future;
- terms relating to the renewal and termination of the contract;
- the identify and address of the regulated entity, including contact details (this must include various contact options including email, instant message, telephone and physical letter) and this must provide a route to the regulated entity's complaints handling process in the event of a complaint;
- details of the regulated entity's complaints handling process;
- the quality of service standards that will be met;
- compensation and refund arrangements which apply if quality of service standards are not met, including inaccurate billing and planned and unplanned interruptions;

- services provided by the regulated entity or any third parties, including operation, maintenance, metering, and billing services, and where there are multiple organisations offering these services, the split of responsibilities must be clear;
- key performance indicators of the heat network, including network efficiency;
- the means by which the consumer can be provided with information on available tariffs and on changes to heat charge, including justifications and notice periods;
- information on the consumer's rights to dispute settlement in the event of a dispute with the regulated entity, including recourse to the Energy Ombudsman;
- information on the availability of consumer advocacy from Citizens Advice or Consumer Scotland; and,
- information on the source of heat and the environmental impacts of the heat generation.

If a consumer requests a copy of the contract, the regulated entity must send that copy within a reasonable period of time. Consumers on metered properties will also be able to request historic heat consumption data from the regulated entity.

We will require information to be provided to the consumer, regardless of whether it is contained within a standalone heat supply or energy supply contract, or part of a wider contract such as the terms of the lease.

Appendix 3: Proposed outcome-based smart meter specification

Drawing on learnings from the smart meter rollout in gas and electricity markets, we want to ensure that heat AMI meter infrastructure requirements are principles based, to ensure that innovative metering products and solutions can be deployed while ensuring technical and customer benefits are realised. These principles are:

- metering and measuring device accuracy to comply with equivalent UK legislative classifications and EN 1434/OIML RN75 standards;
- controls should maintain enough information to support fault finding and optimisation (i.e. suitable data storage);
- systems need to communicate effectively with users to supply billing information;
- systems need to demonstrate suitable levels of data security;
- systems need to be able to shut down and start up based on signals from meter;
- systems need to be able to operate in a manner that is sensitive to the needs of vulnerable users; and,
- systems needs to be able to remotely change payment modes.

In terms of more specific technical requirements, we believe that AMI metering solutions installed must as a minimum meet these requirements;

- system to be compatible with leading makes of HIUs (supplier preferences to be highlighted);
- compatibility with “head ends”, for example, at HIUs/substations to be open protocol so software can be replaced, for instance if new O&M contractor appointed;
- software to generate metering & billing data;
- software to be able to store 6-months work of data securely and able to securely receive and transmit data and command signals;
- dashboard to enable remote alterations and fault corrections to be made in turn minimising engineer call-outs;
- dashboard to allow contact by heat users using email, app, phone or letter;
- software to include financial debtor and creditor ledgers with data feed compatible with leading accountancy systems;
- software to allow monthly bill statements to be automatically issued and for full range of payment methods including prepay (with emergency credit), debit /credit card, direct debit, app payments / mobile top up, and electronic transfer;

- system to permit definition of a non-disablement calendar to prevent heat supply being disabled in cold periods for vulnerable customers;
- dashboard to allow a “view” function for client;
- software to be ‘cross-compatible’ with other supplier’s infrastructure, to allow changes in heat supplier to occur smoothly and with minimal supply interruption; and,
- system needs to be able to identify meter installation flaws and raise error codes to highlight these flaws.

Appendix 4: Prepayment meter policy

Desired outcome: Minimise domestic PPM consumers in vulnerable circumstances resorting to self-disconnection or self-rationing.

Gas and electricity supply Standard Licence Conditions (SLCs) require licensees to take efforts to identify domestic consumers on PPMs that are self-disconnecting and whether they are in vulnerable circumstances. They must offer domestic consumers on a PPM additional support credit, such as emergency credit and friendly-hours credit, unless technically unfeasible or outside of the licensee's control to offer these facilities. The SLCs state that PPMs should only be used where "safe and reasonably practicable". Existing Ofgem guidance provides context on where a PPM may not be safe and reasonably practicable, including a mental or physical disability preventing PPM use, the need for continuous supply for health reasons, and circumstances inhibiting topping up a meter (e.g. inability to travel). Suppliers are required to monitor usage to identify self-disconnection and make alternative arrangements if a PPM is no longer safe and reasonably practicable.

Ofgem's new Code of Practice provides that where a consumer can afford to pay for consumption but not debt repayment, the supplier must consider alternative approaches to debt recovery such as delaying repayment.

We consider it appropriate for heat network authorisation conditions to replicate these SLCs and Code of Practice provisions. Combined with general protections for consumers in vulnerable circumstances set out above on page 59 (includes a Priority Services Register; support to help consumers identify engineers and metering agents; facilities for consumers with additional communication needs; repayment plans) and measures to incentivise smart meter roll-out, domestic consumers on PPMs will benefit from:

- suppliers proactively identifying consumers, particularly those in vulnerable circumstances, who are self-disconnecting or at risk of doing so;
- having access to emergency credit and friendly hours credit before having to self-disconnect or self-ration; and,
- greater flexibility on when and how quickly to pay off debts to mitigate the risk that a consumer self-disconnects or self-rations in fear of debt increases.

Desired outcome: A domestic consumer is only put or kept on a PPM where it is appropriate for that consumer, with a supplier identifying circumstances making a PPM inappropriate before PPM installation or early on during PPM use if already installed.

In addition to the "safe and reasonably practicable" test set out above, the SLCs provide that PPMs should not be installed or remotely switched on without carrying out appropriate assessments, including identifying any relevant vulnerability. There is also a seven-day notice period before switching payment method, which includes switching to a PPM. The Code of Practice introduces some additional requirements:

- Under the "safe and reasonably practicable" test, it introduces an indicative 'high risk' category of consumer where a PPM should not be installed. This includes those who require a continuous supply for health reasons, households with someone aged 85+, and households with chronic/severe or terminal health conditions. Suppliers must

make every effort to identify consumers in this category before applying for a warrant to install a PPM.

- It also introduces an indicative ‘medium risk’ category where suppliers must conduct further assessment on a case-by-case basis to determine if a PPM is safe and reasonably practicable. This includes households with children under 5 and people aged 75+, households with other serious physical and mental health conditions, and households with temporary situations such as pregnancy and bereavement. Suppliers are also encouraged to consider whether a PPM is safe and reasonably practicable for adults aged 65+ and children under 16, and an assessment is required of whether self-disconnections could exacerbate existing medical conditions.
- The involuntary installation of or remote switching to a PPM is a last resort, which means that steps have been taken by the supplier to enable debt repayment and complete a comprehensive assessment on whether a PPM is safe and reasonably practicable.
- Prohibition on the involuntary installation of or remote switching to a PPM for debt less than 3 months outstanding or less than £200 per fuel, or where the consumer is on or transitioning to a repayment plan.
- If a consumer is reliant on additional support credit to remain on supply, the supplier must assess whether the PPM remains safe and reasonably practicable.

We consider that these SLCs and Code of Practice provisions could be suitable for heat network authorisation conditions. We are also interested in views on whether an assessment of financial vulnerability should be included in heat networks’ assessment of whether a PPM is safe and reasonably practicable, and if so, what metrics we could use for categorising consumers in financial difficulty as ‘high risk’ and ‘medium risk’. The requirement on heat networks to maintain a Priority Services Register will support the appropriate use of PPMs.

Desired outcome: Suppliers have sustainable cash flows and avoid unsustainable debt accrual.

Where it is safe and reasonably practicable, all preceding avenues (including repayment plans and later debt repayment) have been exhausted, and the debt exceeds 3 months or £200, suppliers will be able to install a PPM or remotely switch a smart meter to PPM. This strikes a balance between ensuring suppliers can recover debts in a proportionate and responsible manner, whilst ensuring consumers for whom a PPM would not be safe or appropriate are not subject to involuntary PPM.

As a reflection of this balance, we are interested in views on whether we should introduce prescriptive rules outlining how much of a consumer in debt’s top-up goes towards paying off the debt, and how much goes towards ongoing heat consumption

Desired outcome: Suppliers and their third-party contractors only use powers of entry to force-fit a PPM as a last resort, and not at all if entering the consumer’s premise or PPM use is not appropriate.

The SLCs provide the following protections on involuntary physical PPM installations:

- A universal cap of £150 on charges to a consumer of costs of PPM installation under warrant. There are prohibitions charging any costs for warrants in relation to consumers in certain vulnerable situations, including financial vulnerability.

- Suppliers are bound by a proportionality principle covering all actions when recovering debt, including the use of a warrant to install a PPM.
- PPM installations are prohibited if the household contains a person for whom the experience would be severely traumatic due to an existing vulnerability relating to a mental or psychological state.
- A supplier must take steps to ensure that any third-party contractor installing the PPM on its behalf is a fit and proper person with appropriate skills.

We consider that these SLCs could be suitable for heat network authorisation conditions. We would need to do sector-specific analysis on the costs of installing heat network PPMs given the £150 cap is based on installation costs in G&E, which we would consult on when we publish draft authorisation conditions next year. As well as protecting consumers and ensuring they are not faced with costs which could be in addition to their credit meter debt that has caused the PPM installation, this would help incentivise suppliers to roll-out smart meters with remotely switchable functionality. We also understand that for retail energy, Ofgem is exploring producing guidance for suppliers on how to manage third parties involved in PPM installation. We consider that equivalent guidance for use of third parties by heat networks would be appropriate.

Glossary

Alpha phase	An early stage of digital development.
Beta phase	The stage of the digital development process that follows the alpha phase.
Building Classes	In order to clarify obligations under HNMBR, Regulation 2A splits buildings connected to heat networks into a series of classes; the Viable class, where a building is part of a newly connected heat network, or one that has undergone major renovations; the Open class, where a building is an existing building that is not exempt; and the Exempt class, which consists of buildings that are part of supported housing, purpose-built student accommodation, alms house accommodation, or where more than 10% of customers are subject to leasehold interests that prevent consumption-based billing.
Bulk supply	An operating model where heat is supplied from a district network in bulk to a building by one party and a separate party, usually the building owner then holds the responsibility for in-building network operation and contractual supply to the end consumers within the building.
CMA	Competition and Markets Authority.
Code Manager	An organisation licenced by Ofgem to carry out activities relating to technical standards codes.
Communal heat network	A heat network by means of which heating, cooling or hot water is supplied only to a single building divided into separate premises or persons in those premises.
Cost-Effectiveness Tool	A tool which is used by heat suppliers to determine, based on the cost of installation and the price the supplier pays to generate heat, whether the cost of installation works would be recovered in energy savings over a 10 year appraisal period. If the tool says that the

	cost would be recovered, meter installation obligations under HNMBR apply.
Cost avoidance	The approach used by just over half of the market whereby the operator seeks to make a profit. Costs are avoided, or reduced, to maximise profits. This approach is typically seen on networks run on a private basis.
Cost recovery	The approach used by just over a third of the market whereby heat suppliers incur costs and recover them from end users in the following period. ⁶⁸ Given operators do not seek to make a profit, only to recover costs incurred, this approach is often framed as not-for-profit and is used by networks run by or for public bodies.
CSCP	Customer Supply Continuity Plans.
Day 1	The first day in which a piece of legislation comes into force or takes effect.
De minimis	A legal term meaning too small to be taken into consideration; in the context of a de minimis threshold, a size of an operation below which certain requirements or fees may not apply.
DESNZ	Department for Energy Security and Net Zero.
District heat network	A heat network by means of which heating, cooling or hot water is supplied to two or more buildings or persons in those buildings.
DLUHC	Department for Levelling Up, Housing and Communities.
Domestic consumer	A consumer who is supplied or needs to be supplied at a domestic premise, for example a home.
EBDS	Energy Bills Discount Scheme.
EBRS	Energy Bill Relief Scheme.
EPC	Energy Performance Certificate.
EPG	Energy Price Guarantee.

⁶⁸ Figures taken from the HNCOS Surve, which found market split by profit generating (56%), cost recovery (37%), do not know (5%) and prefer not to say (2%). Survey results here <https://www.gov.uk/government/publications/heat-network-consumer-and-operator-survey-2022>

ESCo	Energy Service Company.
HCA	A Heat Cost Allocator is a device used to estimate heat transferred from a radiator into the premise that radiator is heating, to generate an estimate of consumption.
Heat network	A network that, by distributing a liquid or a gas, enables the transfer of thermal energy for the purpose of supplying heating, cooling or hot water to a building or persons in that building (and includes any appliance the main purpose of which is to heat or cool the liquid or gas).
Heat network operator	An organisation that is responsible for the day-to-day operation and maintenance of a heat network and its infrastructure.
Heat network supplier	An organisation that is responsible for the supply of heating, cooling or hot water through a heat network often via contractual terms to end consumers.
Heat Trust	A not-for-profit company representing heat network customer interests. Heat Trust runs a voluntary scheme, in which heat suppliers who sign up guarantee that they will follow certain customer service standards.
HIU	A Heat Interface Unit is a device used in heat networks to facilitate the transfer of heat, cooling or hot water from the heat network into a customer's premise.
HNCOS	Heat Network Consumer and Operator Survey.
HNIP	Heat Network Investment Project.
HNMBR	Heat Networks (Metering and Billing) Regulations 2014 (as amended in 2015 and 2020).
Managing agent	An entity appointed by the landlord to run and manage the building and associated services.
Microbusiness	A microbusiness will be defined as a business that meets either of the following two criteria: (1) it consumes less than 247,000 kWh of heat per year; or

	(2) it has less than 10 full-time employees or an annual turnover of less than £2 million.
MIR	Measuring Instruments Regulations 2016.
Ofgem	Office of Gas and Electricity Markets. Independent regulator governed by the Gas and Electricity Markets Authority (GEMA).
OPSS	Office for Product Safety and Standards.
PPM	Pre-Payment Meter.
Primary Heat Network	The distribution pipes that connect the energy centre to building(s).
PSR	Priority Services Register.
RAB	Regulated Asset Base.
Relevant heat network	A district heat network, or a communal heat network.
Secondary Heat Network	Pipes within building(s), and up to each dwelling in residential blocks.
Self-disconnection	Where a consumer uses a Pre-Payment Meter and experiences an interruption to their supply because the credit on the meter has been exhausted.
Self-supply heat network	Heat networks that serve more than one building but supply thermal energy only to a single business/organisation that occupies the building(s) which is also the network operator / supplier.
Shared ground loop	Where 2 or more properties are heated by individual ground source heat pumps connected to it.
SI	Statutory Instrument.
SLC	Supply Licensing Condition.
SLR	Supplier Licensing Review.
SME	Small-to-Medium Enterprise: Any organisation larger than a microbusiness that has fewer than 250 employees and a turnover of less than €50 million.
SoLR	Supplier of Last Resort.
Step in	Arrangements for the eventuality of heat network failure, with a focus on ensuring continued supply to consumers.

VRV/VRF	Variable Refrigerant Volume / Flow.
Vulnerable consumer(s)	Short form of customer(s) in vulnerable circumstances. This means individuals who are deemed more at risk of detriment due to their personal circumstances or situation. This could be for a range of reasons, including long-term, short-term or permanent emotional, health-related, financial or social circumstances.
WACC	Weighted Average Cost of Capital.

To respond to this consultation visit: <https://beisgovuk.citizenspace.com/heat/heat-networks-regulation-consumer-protection>

Or email: heatnetworks@energysecurity.gov.uk and heatnetworksregulation@ofgem.gov.uk

Or write to:

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The consultation page for GOV.UK is below. Updates and supporting documents can be found there <https://www.gov.uk/government/consultations/heat-networks-regulation-consumer-protection>

This is a joint consultation, run by DESNZ and Ofgem. The Ofgem consultation page can be found here <https://www.ofgem.gov.uk/publications/consultation-heat-networks-regulation-consumer-protection>

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