Department for
Business, Energy
& Industrial Strategy

Heat Networks: Proposals for Heat Network Zoning

Government Response

June 2022

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Contents

General Information

This document sets out the government's response to the proposals for heat network zoning consultation, which was published on 8 October 2021 and closed on 19 November 2021. It provides a summary of the responses to each question in the consultation and a brief overview of our zoning policy. This includes details of proposals which have changed since October 2021 following analysis of the consultation responses and further policy development since the consultation closed.

We received 101 responses to the consultation. A diverse range of stakeholders provided their views, with respondents consisting of representatives from local authorities, trade associations, energy service companies (ESCOs), **distribution networks operators** (DNOs), academics, charities, small, medium and large businesses and individuals, among others.

Contact details

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Introduction

Background

Heat networks play an important role in decarbonising heat and support the delivery of our net zero commitments. They are uniquely able to unlock otherwise inaccessible larger scale renewable and recovered heat sources such as waste heat and heat from rivers and mines. There are currently over 14,000 heat networks in the UK, providing heating and hot water to approximately 480,000 consumers. Around 2% of UK heat demand is provided by heat networks and the Climate Change Committee estimates that with government support this could rise to 18% by 2050. Our work with the Heat Networks Industry Council indicates that this growth has investment potential between £60 billion to £80 billion by 2050.

Heat network zoning is a key policy solution to help reach this scale of expansion in England. It will involve central and local government working together with industry

and local stakeholders to identify and designate areas as heat network zones. These zones will mean growth of heat networks where they provide the lowest cost way to decarbonise heating, meaning that the policy will have no short-term impact on the cost of living and, in the long-run as we transition to net-zero, it should reduce costs for consumers compared to alternative sources of heating.

This consultation response follows on from our 2020 Energy White Paper where we committed to introducing heat network zoning in England by 2025. This commitment was further reiterated in the Heat & Building Strategy and the Net Zero Strategy.

In the Queen's Speech on 10th May it was announced that in the current session of parliament the Energy Security Bill will contain provisions on heat network policy with full details of the proposed legislation to be released upon introduction of the Bill to the Houses of Parliament.

Heat network zoning will be accompanied by comprehensive consumer protection regulation of the heat network sector. Ofgem will take on the role of regulator and will have new powers to regulate prices in the sector as a matter of priority, including for heat network consumers in heat network zones. Within the sector, this will secure fair pricing for domestic customers as well as ensuring operators are securing good purchasing deals for their consumers, whilst encouraging continued investment in networks (further details about heat network regulation are available in our consultation here).

Summary

We ran a public consultation on our proposals for heat network zoning between 8 October and 19 November 2021. The proposals envisaged central and local government working together with industry and local stakeholders to identify and designate areas within which heat networks are the lowest cost solution for decarbonising heat. Certain buildings within zones would be required to connect to a heat network and a low carbon requirement will be introduced to ensure that new heat networks in zones are compatible with our net zero commitments.

We received 101 responses that showed a high level of support for our proposals overall. This document sets outs out, in detail, the views we received from stakeholders on the proposals and the government's response with a summary provided below.

A pilot of the zoning methodology is currently underway in 28 towns and cities across England. This and other BEIS studies will provide evidence which we will use to inform further policy design and future consultations.

A summary of our key decisions following consultation are:

We will proceed with the development of a **standardised methodology to identify potential heat network zones**. This will comprise of a national mapping exercise, led by a central authority, to identify and prioritise areas where heat network zones might be situated. This exercise will be followed by **a local refinement** stage which

will define the boundaries and officially designate a zone. The central authority will also act as the data custodian of the data required to implement the methodology.

We will give local government **the power to act as or establish a local Zoning Coordinator** to undertake certain zoning functions including designating areas as heat networks zones. The Zoning Coordinator will have powers to request information to support its work and will also consider the views of specified parties before designating a zone. The level of local government at which the Zoning Coordinator is established will remain flexible, including the possibility of multiple local authorities at different levels of government working jointly to deliver zones.

In addition, the Secretary of State for **Business, Energy and Industrial Strategy** (BEIS) will be given powers to:

- direct local government to designate a heat network zone
- designate a zone on behalf of local government
- fulfil the functions of a Zoning Coordinator

These powers will be used in situations where there is a risk of a substantial low-carbon network not being developed and the Secretary of State for BEIS will be required to seek agreement from the Secretary of State for Levelling Up, Housing and Communities and consult with local government before using these powers.

Within a heat network zone, specific buildings or groups of buildings will be **required to connect to a heat network within a prescribed timeframe**. We will define these categories in future secondary legislation. Ahead of this secondary legislation we will also seek further views on an appropriate grace period for connections and on the metric for defining the list of buildings noted above. This will ensure we capture the correct buildings when mandating connection.

Building owners will be able to **request an exemption** from the requirement to connect in certain circumstances, for example where they have already installed low-carbon heating systems or the costs of connection to the heat network are prohibitive. We will further develop the criteria and process for exemptions.

Low carbon heat sources will be an integral part of any heat network developed within a zone. Owners of potential heat sources will be required to cooperate with the Zoning Coordinator and heat network developers to assess their technical and economic case for connection. Given their importance to the viability of heat networks in a zone, we will explore introducing the **power to require heat sources to connect**. We will consider the circumstances in which this requirement will apply in future consultation.

To ensure low carbon heat networks are developed within zones, **minimum carbon standards will be introduced** for new networks in zones and new connections of existing heat networks in zones. The nature and level of these standards and their application will be set out in secondary legislation following further policy design. The Heat Network Market Framework[1] will introduce broader carbon regulation applicable to all heat networks from the 2030s – we will consider whether and how

[1] See: https://www.gov.uk/government/consultations/heat-networks-building-a-market-framework

this should apply to existing heat networks within zones, and how we can create long term consistency and alignment between new and existing networks within zones.

Zoning Coordinators will have the **flexibility to determine the delivery model** of heat networks within their zones. Developers and operators will be subject to any **outline conditions** specified by the Zoning Coordinators. Additionally, we will introduce a new provision such that, where Zoning Coordinators have opted for a public or private-sector-led delivery model, they will have the power **to veto the development** of other new networks in their zones to ensure the delivery of their overall strategy. Finally, we will continue to explore introducing provisions which apply a **time threshold** on development of heat networks within zones in order to avoid the risk that zones remain undeveloped.

The government's heat network market framework consultation response confirmed Ofgem as the heat network regulator. They will act as the regulator for all heat networks within **Great Britain** and will oversee the consumer protection regime. Different circumstances within and outside zones **in England** may require different regulatory approaches, and our intention is that the regulator may apply different approaches to heat network consumers outside and inside zones. We will **extend protections relating to pricing to all consumers who are required to connect within zones**, including non-domestic consumers, and will consider further whether any additional extensions are required. Secondary legislation will specify which consumer protections will apply to those consumers inside and outside zones.

Zoning Coordinators will **lead on local zone enforcement**, with the ability to impose civil sanctions where requirements to connect buildings and heat sources, and the provision of information, are not met. We will ensure that payment of a fine will not be an alternative route for entities to comply with these obligations. This local zone enforcement is distinct from Ofgem's national enforcement role. Details of the enforcement procedure and the conditions and process for appeals will be defined in forthcoming secondary legislation.

To enable effective enforcement, zones will be **subject to a reporting and monitoring framework**. While heat networks will have a general reporting and monitoring system under consumer protection regulation, we will develop an additional standardised, zoning-specific approach.

Finally, respondents were supportive of **a process for reviewing zones** but highlighted concerns about undermining certainty of demand for developers. We will develop the zone review process further which will be subject to consultation and outlined in the regulations.

Summary of Comments and Government Response

The following section outlines the main themes arising from stakeholders' responses to each of the 60 questions within the consultation document.

For questions which asked respondents to *Agree* or *Disagree*, we provide a table with a breakdown of the responses received into 5 categories: *Agree, Disagree, Neither* (neither explicitly Agree nor Disagree)*, Comment Only* and *Blank* (no response submitted for that question). We include an additional column to show the number of responses as a percentage of total non-blank responses received for that question. Questions with different response options have equivalent tables.

Below each question, we provide a summary of the main themes emerging from each question and the number of stakeholders expressing those themes in their response. The sum of numbers presented in the text will not match the totals in the table as many respondents may have made more than one point within their respective answers. This also reflects the fact that some points were made by *Comment Only* respondents who neither explicitly agree nor disagree with the question.

In general, we exclude points made by three respondents or less from this document unless they provide additional nuance or useful interpretations. We also highlight any responses made by a single body which represents a significant proportion of the heat network industry within the text. However, we have considered all responses during policy development.

At the end of each significant section of the document, we provide the government's response to the main points made by respondents and explain any changes to our policy proposals occurring since the consultation.

Additional stakeholder engagement

During the consultation period, we carried out a series of stakeholder engagement workshops with representatives from different stakeholder groups. The purpose of the workshops was to engage with stakeholders in an informal way about our zoning proposals and answer questions about the consultation.

We summarise any pertinent points raised during these workshops under the relevant question.

Local Area Energy Mapping and Planning and heat network zoning

Question 1: Do you have views on how local area energy mapping and planning can best support heat network zoning?

Seventy-five stakeholders provided a response to this question.

Overall, most respondents considered that **Local Area Energy Mapping and Planning** (LAEMP) closely relates to heat network zoning. Ten respondents stated that both policies will clearly be important for meeting decarbonisation targets at a local level. Twelve respondents considered that LAEMP would likely identify the most suitable areas for different technology types including heat networks, heat pumps and hydrogen and may allow for more holistic review at the local level. This inclusion of other technologies was a prominent theme throughout the responses, with 12 commenting that zones should not be viewed in isolation and other technologies should be included in the considerations and not as an afterthought. To facilitate LAEMP and heat network zoning, 13 respondents cited the importance of up-to-date data such as building density information. Three other stakeholders noted the importance of implementing heat network zoning in a robust way to lay the groundwork for LAEMP.

The existing planning process was also mentioned as an important component of LAEMP and potentially important for heat network zoning. Nine respondents commented that planning applications can assist with the setting-up of a heat network zone and that the process would provide confidence to local government and investors. Seven respondents emphasised that consistency across national policies, including heat network zoning and LAEMP, was important and policies should not be contradictory (as emphasised by three respondents). Finally, one respondent recommended that any integration efforts should ensure that the heat network zoning process is not dependant on LAEMP as the former is likely to be able to move more quickly than the latter, particularly in areas with developing heat network plans. The same respondent also highlighted that the **Distribution Future Energy Scenarios** (DFES) analysis for the DNOs is vital for decarbonised heat networks, and a total of 2 respondents suggested that the DFES process should be more explicitly linked into heat network zoning plans.

A common theme to emerge from responses was the need to identify sources and users of energy. Twelve stakeholders noted that heat clusters or sources would need to be identified and heat networks prioritised in these areas. Similarly, 7 respondents commented that LAEMP should create a list of energy users, their requirements and plans for future energy use.

Though most comments focused on the interaction between LAEMP and zoning, other responses were broader in scope. For example, 3 respondents noted that LAEMP must consider whole lifecycle costs and a further three respondents noted that heat network zoning in general should not disincentivise fabric efficiency upgrades. Four stakeholders noted that improving the efficiency of the process(es)

for implementing policy at the local and building level, such as updating SAP 2012, would need to occur alongside LAEMP and heat network zoning.

Government response – Local Area Energy Mapping and Planning (LAEMP) and heat network zoning

We note that the majority of respondents were supportive of LAEMP aligning with the heat networks zoning policy. We accept that further clarity is needed on how LAEMP and heat networks zoning could interact. The government and Ofgem are working together to consider the role local and regional energy planning could play in delivering net zero and supporting efficient network planning – including heat networks and zoning policy. We will continue to engage on this issue, set out further thinking on the interaction in due course.

Zoning process, and roles and responsibilities

Heat networks in scope

Question 2: Do you agree or disagree that the scope of the proposed zoning policy should prioritise district heat networks with cooling permitted but not required? If you disagree, please explain your reasoning.

Question 2	Response	Percentage of responses[2]
Agree	47	59%
Disagree	13	16%
Neither	10	13%
Comment only	9	11%
Blank	22	

Table 1

In general, 59% of stakeholders who provided views, including 2 industry trade associations, agreed that cooling should be permitted but not required. Twenty respondents noted that this approach is preferable to requiring a network which is ‘cooling-enabled’ as this approach could exclude viable 'heat only' networks. On the other hand, 7 stakeholders commented that the policy must not restrict cooling, highlighting the need for flexibility within the approach.

Although stakeholders were keen to emphasise the importance of flexibility, some noted the value of including cooling alongside heat when defining a zone, with 12 noting that climate change may be a factor which increases demand for cooling and others noting that the incorporation of cooling may help to keep open the option of ambient loops. Six respondents commented that cooling sources themselves may become potential heat sources on a network.

Of those respondents who disagreed, three commented that cooling is of limited relevance in considering where heat networks may best be located and would need its own infrastructure. Three other respondents noted the potential environmental impact of air conditioning and other cooling technologies.

Two stakeholders stated there should be resources to support decisions that include combined heating and cooling propositions.

Our response to this question is outlined on page 13.

[2] Excludes non-responses (blanks).

Question 3: Is there anything else we should consider with regards to cooling in the context of the zoning policy?

Sixty-one stakeholders provided a response to this question.

Most stakeholders provided substantive points regarding cooling in response to Question 2. However, 12 respondents emphasised again that the focus should remain on heating, while not discouraging cooling.

Nine respondents noted that there is a lack of data on cooling and more research is needed in this emerging area.

Six stakeholders responded that the decarbonisation of cooling should not be forgotten in the discussion of district heating. Two stakeholders believe that LAEMP policy should capture cooling.

Across Questions 2 and 3 there was some agreement from stakeholders that government policy should recognise ambient loops. Five stakeholders referenced ambient loops in their responses to Question 3.

As with Question 2, 5 stakeholders noted that district cooling and district heating are closely related. Five stated that cooling will likely become more important in the future given the impacts of climate change and effective cooling will be most important in a domestic context.

Our response to this question is outlined on page 13.

Question 4: Do you agree or disagree that there should be no minimum threshold for heat supply or heat demand?

Question 4	Response	Percentage of responses[2]
Agree	53	71%
Disagree	7	9%
Neither	8	11%
Comment only	7	9%
Blank	26	

Table 2

The consultation argued against the introduction of a minimum size for district heat networks within a zone, in terms of annual heat supply or heat demand, as it was considered more appropriate to allow for flexibility in the policy.

As show in Table 2, 71% of stakeholders who responded to Question 4, including 2 industry trade associations, agreed there should be no minimum threshold for heat supply or demand within a zone. Eight respondents cited flexibility as the primary reason for this view. Eight other respondents focussed on the technical, practical,

and economic difficulties of implementing a minimum threshold within a zone. These respondents discussed issues such as the difficulties a Zoning Coordinator would face when undertaking threshold analysis, possible impacts on customer billing, the natural variability of factors between zones and the challenges of choosing a fair minimum threshold appropriate for all zones, and the possibility of excluding viable consumers due to a minimum threshold.

Six stakeholders noted that heat supply and demand within a zone may change over time. This may be due to a significant move of consumers out of the area or due to interruptions in heat supply due to maintenance, seasonality or downtime.

Seven respondents did not consider a minimum threshold necessary as heat networks would, in any case, need to reach a minimum threshold to become commercially viable. These respondents considered that a minimum threshold is unnecessary provided that the network is deemed suitably strategic and the most cost-effective solution for heat decarbonisation in each area.

Four stakeholders considered the definition of heat supply as potentially too limited in this context. They considered there would need to be an assessment of heat sources to understand the overall ‘heat load’ of a potential zone before the calculation of any minimum threshold. There were also comments that this should be reserved for the LAEMP policy.

Six respondents agreed that a minimum threshold is not proportionate at this time. However, they expressed concern at the possibility of smaller networks developing in place of larger, more strategic networks. This view was expressed by one industry trade association. Some of these respondents suggested that a size threshold should be left as an option for introduction at a later point. Of the respondents who disagreed and provided comments, two stated that the success of low carbon heat networks (with success generally defined as the ability to provide low carbon heat to a substantial number of consumers) was proportionate to their size.

Government response – Heat networks in scope

We note that a majority of respondents agreed with our proposals regarding cooling, and we therefore confirm the proposed approach whereby cooling technologies are permitted but not required within zones. While we acknowledge some stakeholder concern that this may miss the opportunity to require the inclusion of cooling, we consider that this approach provides an appropriate level of flexibility. It would not preclude the inclusion of cooling where it is considered feasible or desirable as part of zone designation. We will aim to ensure that any definition of heat network in the primary legislation appropriately reflects the possibility of supplying both heat and cooling.

We will ensure our policy development for secondary legislation considers the detailed responses provided to this consultation, including those related to ambient loops and cooling more generally.

As stated in the consultation, we do not propose introducing a minimum size for district heat networks within a zone. After reviewing the consultation responses,

we continue to believe that maintaining flexibility in this area of the policy is appropriate and that setting an upfront minimum threshold of annual heat supply or heat demand would be overly complicated or restrictive.

The role of the central authority

Question 5: Do you agree or disagree that some functions should be carried out centrally? If you disagree, please indicate why.

Question 5	Response	Percentage of responses[2]
Agree	61	81%
Disagree	6	8%
Neither	6	8%
Comment only	2	3%
Blank	26	

Table 3

A large majority (81%) of stakeholders, including 2 industry trade associations, agreed that certain functions should be carried out centrally.

Thirty-three respondents, including one industry trade association, agreed that a central approach to some aspects of zoning will maximise consistency across England, build confidence and increase certainty in heat networks and zones. Respondents highlighted the following as important functions to centralise: a standardised methodology, performance metrics, and some elements of data collection and management.

Seven respondents highlighted that a central authority with responsibility for some elements of the process will make zoning more efficient and reduce resource pressure on local authorities. However, some respondents, including one industry trade association, stated that the central authority needs to be flexible and quick to respond to ensure that the development of heat networks are not held up by cumbersome, centralised processes.

Eight respondents highlighted that the central authority should have a role in collecting and managing certain aspects of the data required during zoning, including national datasets for use by Zoning Coordinators and network developers. Others stated that any central data infrastructure needs to integrate with local systems, and that the data collection processes need to capture local views. One respondent who disagreed with the main proposal stated that technical standards and data reporting for oversight purposes should be the only centralised processes. One industry trade association asked that the government is transparent on the gathering and usage of data.

Our response to this question is outlined on page 20.

Question 6: Is there specific data you think should not be collated and managed at a national or central level?

Fifty-six stakeholders provided responses to this question.

Twenty-nine respondents, including one industry trade association, did not think there is any data the central body should not collect. Some respondents highlighted that collecting data may be challenging and complex, and that local authorities having access to the data would also need to be a key feature of a centralised data management system.

Ten respondents raised the importance of ensuring the data is held securely and is compliant with data protection regulations. One respondent raised that data protection requirements may limit the amount of data the central authority can collect.

Six respondents considered that the central authority does not need to collect data on some specific local attributes. Examples included the following: infrastructure projects in towns and cities, heat demand profiles of individual buildings, local geology and hydrology and some types of planning data.

Six respondents, including one industry trade association, asked for clarification on the roles and responsibilities of different parties in the data collection process and transparency around the uses of the data.

Four respondents think that either local actors should collect all data, or that the Zoning Coordinator or local government should have a larger role in the data collection process.

Our response to this question is outlined on page 20.

The role of the heat network Zoning Coordinator

Question 7: Do you think there are any additional functions that we should consider for the Zoning Coordinator? If so, please describe these functions and explain why they may be required.

Sixty-two stakeholders provided a response to this question.

Twenty-one respondents, including 2 industry trade associations, expressed concern that local authorities would not have access to sufficient funding or expertise for the Zoning Coordinator role and that the government should address this. The respondents either agree with the proposed co-ordinator responsibilities or suggested additional responsibilities, but all share the view that additional funding will be required to execute these functions.

Many respondents suggested that the Zoning Coordinator should take on a leading role in communicating and engaging with various local bodies and stakeholders. Eighteen respondents provided examples of relevant bodies who would need to be engaged with, including public sector bodies such as planning authorities, highway authorities and the Environment Agency, and individuals within those bodies such as sustainability officers.

Seven respondents believe that Zoning Coordinators should lead on providing advice and guidance to those impacted by zoning. Some stakeholders stated that Zoning Coordinators should act as the main source of information and advice, while others emphasised that they should focus on raising awareness and encouraging connections to heat networks.

Fourteen respondents, including one industry trade association, stated that the Zoning Coordinator should be required to play a role in the zone identification stage, rather than this being optional. It was considered that this would increase buy-in from consumers, trust and local accountability. Respondents highlighted that local knowledge is key to ensuring that zones are optimised around local characteristics.

Five respondents said that Zoning Coordinators should have a role in wider energy planning within their zones. These responsibilities range from an awareness of local net-zero initiatives to a more comprehensive whole systems or master planning role. Four respondents considered that Zoning Coordinators should be responsible for ensuring their activities align with local net-zero initiatives.

In contrast, 11 respondents believe that the central authority or another body should carry out some of the functions proposed for the Zoning Coordinator. Data collection was the most common example given: one industry trade association considered that the central authority rather than local bodies should be responsible for collecting local data. Other respondents stated that some of the Zoning Coordinator's proposed procurement responsibilities are better suited to a centralised approach, to minimise potential conflicts of interest.[3]

Our response to this question is outlined on page 20.

Question 8: Do you think any of these functions are better situated with a central authority? If so, please explain why.

Sixty stakeholders provided a response to this question.

Fifteen respondents indicated that they would like to see as much responsibility as possible situated at the local level. Several of these respondents agreed with the functions listed, though some agreed only on the condition that appropriate funding is available. Others in this group supported reverting some functions to the central authority in cases where local authorities cannot resource the Zoning Coordinator role, or if a conflict of interest makes it untenable for local government to carry out a particular function. Two respondents expressed a preference for having everything decided at a local level, with little to no involvement from the central authority.[4]

Eight respondents, including one industry trade association, stated that the central authority is best placed to carry out functions that require national consistency. Those who provided additional detail highlighted the need for central co-ordination when zones cross local government boundaries.

[3] Question 38 considers potential conflicts of interest related to the Zoning Coordinator role in more detail.

[4] These respondents also disagreed with Question 5.

Eight respondents, including one industry trade association, considered that the performance monitoring of zones should, in part, fall to the central authority. Around half of these respondents see this responsibility as shared between the Zoning Coordinator and the central authority.

Five respondents, including one industry trade association, stated that the central authority should lead on data collection to ease the burden on local authorities. Some respondents highlighted that this would be especially useful when the data is cross-regional e.g. from organisations with multiple heat sources across the country.

Our response to this question is outlined on page 20.

Question 9: Which of the options do you consider is most appropriate for the Zoning Coordinator? A) where functions are fulfilled by a local authority or authorities jointly, B) where a local authority (or authorities jointly) establish a Zoning Coordinator as a separate entity or C) another design approach. Please explain your reasoning.

Question 9	Response	Percentage of responses[2]
Option A	24	34%
Option B	17	24%
Option C	4	6%
Option A and/or B	15	21%
Comment only	10	14%
Blank	31	

Table 4

Respondents to this question expressed a range of views. Of the industry trade associations responding to this question, one preferred option A, while another stated that local areas should have the flexibility to choose the most appropriate approach for their circumstances.

Sixteen respondents, including one industry trade association, stated that adequate funding will be required for either of the options outlined. This included twelve respondents who supported option A, or thought options A and/or B were both acceptable. One respondent who preferred option B stated that a separate body would require a separate funding stream independent from local government. Those ambivalent to options A or B stated that option A is feasible only if sufficient funding is available.

Eight respondents, including those who supported option A and those who were ambivalent to options A or B, highlighted that the Zoning Coordinator will need to work closely with other local government functions and so sitting within local government itself makes this much simpler. This included one industry trade association.

Seven respondents who supported option A, and one who was ambivalent between options A and B, said that option A would allow local authorities to be held to account via the electoral process.

Five respondents who supported option A stated that the alternative approach would lead to more bureaucracy, would be more expensive and could delay development of zones.

Ten respondents who preferred option B, and one respondent who did not have a preference between option A or B, considered that an independent body would provide a level of focus that may not be possible if the Zoning Coordinator was embedded in local government. Some of these respondents highlighted that for option B to be successful, the government would need to define procedures and structures which allow this body to interact constructively with local government.

Six respondents who supported option B stated that a separate entity would maximise the independence of the Zoning Coordinator and therefore minimize potential conflicts of interest.

Our response to this question is outlined on page 20.

Question 10: Do you agree or disagree that in specific circumstances the Secretary of State should fulfil the functions of the Zoning Coordinator after consultation with the local authority? If so, in what circumstances would you consider this appropriate?

Question 10	Response	Percentage of responses[2]
Agree	47	72%
Disagree	6	9%
Neither	11	17%
Comment only	1	2%
Blank	36	

Table 5

Most respondents expressing a view (72%) agreed with the proposals, including 2 industry trade associations.

Twenty-eight respondents, including one industry trade association, agreed that the Secretary of State should fulfil the Zoning Coordinator role when local government cannot provide the resource to do so, or raises concerns that may require adjudication.

Fifteen respondents agreed that the Secretary of State should have powers to act as Zoning Coordinator in extreme circumstances or as a last resort. Respondents, including one industry trade association, cited instances where the proposed power may be necessary. For example, zones which have significantly unique

characteristics, zones which are ‘nationally significant’, zones which cross administrative boundaries where some local authorities are resistant, and zones where local government presents issues with appointing a zoning coordinator.

Ten respondents agreed with the proposal on the condition that any zone designation by the Secretary of State must involve prior consultation with the relevant local government organisation.

Six respondents, including one industry trade association, considered that these powers should involve a time element, meaning the Secretary of State should be able to step in if the local government does not designate a heat network zone within a defined timeframe following identification of the zone.

One industry trade association stated that the Secretary of State should be the default Zoning Coordinator for zones where heat networks have the potential to sell more than 10 GWh of heat at full build out.

Our response to this question is outlined on page 20.

The role of the heat network regulator

Question 11: Are there additional functions that we should consider for the national regulator with regards to zoning? If yes, please describe these and explain why.

Forty-nine stakeholders provided a response to this question. Of these, 41 respondents suggested additional functions for the national regulator.

Seven respondents suggested additional functions related to pricing. These included closer scrutiny in zones where exclusive rights have been granted, regulation of connection prices, ensuring the cost of regulation does not impact heat network consumers in zones unfairly compared with those outside zones, and setting or arbitrating prices for large consumers.

Four respondents stated that the regulator should establish a quality assurance scheme or provide a quality assurance function for zones.

Four respondents stated that the regulator should have the power to enforce low carbon standards.

Four respondents stated the regulator should monitor the performance of heat networks in zones. One respondent stated that the regulator should have powers to reassign an area to a new developer if the current developer does not deliver against the plans or standards which were used to procure the network.

Our response to this question is outlined on page 20.

Funding, resources, and skills

Question 12: Considering similar functions in local government (such as those related to local plans, strategic flood risk mapping and clean air zones), what

do you consider are the key resources and skills needed to fulfil the functions of the Zoning Coordinator at local authority level?

Sixty-three stakeholders provided a response to this question.

In response to this question, 21 respondents including 2 industry trade associations highlighted that, regardless of skills, more funding and resources will be required to fulfil the Zoning Coordinator role. It was noted that these additional resources would fund staff as well as technical and other types of training. Estimates of the full-time equivalent (FTE) staff required per zone ranged from 1 to 8, but some respondents raised that recruiting technical staff could be difficult due to the competitiveness of the market, lack of skills in the general workforce, and employment 'bottlenecks' arising from a shortfall in the supply of people with zoning-appropriate skills due to multiple local authorities hiring simultaneously.

In addition, 6 respondents stated that the Zoning Coordinator role will require administrative support, which will also require funding.

Table 6 lists the types of skills and expertise mentioned in responses, categorised into broad groups. It includes suggestions from one industry trade association.

Technical	**Soft/project management**	**Commercial and legal**	**Data**
37 respondents	15 respondents	13 respondents	11 respondents
• planning • engineering • retrofit co-ordination • heating technology and network infrastructure • surveying • modelling	• communications • stakeholder engagement • management skills • quality assurance • local knowledge • influencing and negotiating	• procurement • commercial delivery • contractual law • funding routes	• computational modelling • data collection and cleaning • Geographic information system • economic analysis • knowledge and data management

Table 6

Government response – Zoning process, and roles and responsibilities

The role of the central authority

We welcome the widespread support for the proposals in the consultation whereby certain functions are to be undertaken by a central authority and confirm that the central authority will undertake functions which apply at a

national level. We also propose that the central authority may intervene in relation to functions that apply at a regional, multi-local authority or local authority level. Where necessary, more detail as to how these functions will be undertaken (including who will undertake the functions) will be subject to further consideration in due course to inform future legislation. A list of proposed central authority functions has been provided in Annex A.

We note there were some concerns that a centralised process may slow the overall zoning process. We will work to ensure that the central authority functions work smoothly and are as light-touch as possible to maximise efficiency and ensure the effective implementation of heat network zones.

Data collection

As described in the consultation, we envisage that data will need to be collected at a central level to allow for the many of the functions described to take place efficiently. We note that a majority of respondents did not identify any data which they thought should not be managed by the central authority for this purpose, although some expressed reservations that the central authority would need to collect all local and individual building level data.

We agree with respondents that all data must be held in accordance with data protection regulation and should be proportionate to the needs of zoning. We also note stakeholders' requests for further detail on the reporting requirements that will apply within zones, including the role that local actors will play in collecting data. We have set out a high-level framework in the "reporting and monitoring" government response box below and we will work to ensure that further policy development in due course takes account of stakeholder views.

For the purposes of our overarching framework, we intend for the central authority to act as the **'Data Custodian'** (as described in the consultation) with responsibility for collecting and holding data to inform the zoning methodology, as proposed in the consultation.

The role of the Zoning Coordinator

Having considered responses to the consultation, we confirm our intention for the Zoning Coordinator role to be at the local level and for local government to establish the Zoning Coordinator with responsibility for a particular locality. We see local government as the most suitable option for this role due to their pre-existing responsibilities in the local area, democratic accountability, their strategic long-term vision and their contacts with relevant stakeholders. As noted in the consultation, we do not intend to specify at which level of local government the Zoning Coordinator must be established as our intention is to enable a flexible approach. This means the Zoning Coordinator may be established, for example, at a regional, county, district, or metropolitan level; or with several local authorities working jointly. The precise functions of the Zoning Coordinator will be subject to further policy consideration. An indicative list of functions has been provided in Annex A.

We note some stakeholders considered that the Zoning Coordinator should take on a leading role providing advice and guidance to others impacted by zoning. We agree that this is an important consideration to help ensure that our zoning policy is successful and will consider this further.

Some respondents stated that the Zoning Coordinator should **be required** to play a role in the zone identification stage, rather than this being optional, on the basis that this would increase buy-in from consumers and build trust and local accountability. We agree with the benefits that the involvement of the Zoning Coordinator would bring. Indeed, the consultation document set out our expectation that local government and communities would always need to be engaged with the local refinement stage to ensure that local factors and data are integrated into the methodology. In addition, the consultation proposed that the secondary legislation should include a list of parties who must be consulted before a heat network zone is designated. Our provisional position was that local government actors would be included in said list.

We do not consider it appropriate to introduce additional **requirements** for Zoning Coordinators to play a role in the zone identification stage. Whilst our expectation is that they should be involved given the importance of their local expertise (which will help ensure heat network zones are optimally delineated), we recognise that there may be reasons why participation is not feasible in all cases. We therefore consider that optional involvement at this stage strikes the correct balance between allowing local participation but not unduly burdening local government. Where Zoning Coordinators are not involved the central authority may lead this stage of the methodology.

We broadly agree that Zoning Coordinators should have an awareness, understanding and possibly a role to play in wider energy planning within their areas. Although details of LAEMP are not within scope of this policy document, and will be subject to further consultation, we will work to ensure that zoning policy fits within the wider energy planning landscape.

We intend to consult in due course on our proposals for how the Zoning Coordinator is established, governed, and funded. This will include consideration of whether local government can opt to directly carry out the functions of the Zoning Coordinator itself or establish a separate body to do so. We note some stakeholders raised concerns regarding resource for local government and we will be considering these comments carefully as we continue to develop our policy.

We note that nearly three-quarters of respondents agreed that the Secretary of State (or a body acting on their behalf) should have powers to intervene to address situations where a promising heat network zone has been identified but not designated. We therefore confirm that we will provide powers for the Secretary of State to intervene to direct local government to designate a heat network zone, to designate the heat network zone on behalf of local government, and to fulfil the functions of the Zoning Coordinator. As noted in the consultation, our expectation is that these powers would be used in a minority of zones and only in situations where there is a risk of a substantial heat network zone not otherwise being developed. The BEIS Secretary of State

will be obligated to agree the details with the Secretary of State for Levelling Up, Housing and Communities (or a delegated minister within the department), and consult the relevant local government entity before using these powers. They will also consider the extra resources that would be required for local government to carry out any consequential actions that result from the use of these powers.

We will explore setting statutory timeframes after which the Secretary of State can step in if a prospective zone has not been designated or delivered, subject to consultation with the Local Authority and with agreement of the Secretary of State for Levelling Up, Housing and Communities. We will bring forward proposals for consultation in due course as necessary. It may be that in future such timeframes are set out in guidance. However, we do not consider that the Secretary of State should be required to step in where the potential of a zone to provide heat passes a particular threshold, as was proposed by one respondent to the consultation.

The role of the heat network regulator

Since publishing the consultation on our proposals for heat network zoning we have confirmed, in our December 2021 government response to the market framework consultation[5], that we will be establishing Ofgem as the heat network market regulator. Their role will apply to heat networks outside and inside zones. To fulfil its function as regulator in zones, we propose that Ofgem will have the power to request data and information from relevant parties including the Zoning Coordinator, heat network developers and operators. The details of the precise data within scope of these powers, and how it is sought, will be subject to further consultation.

We recognise that there are some aspects of heat networks zoning policy which may require additional powers or responsibilities for Ofgem. In particular, the consumer protection framework (including in relation to fair pricing) may need to be applied differently inside heat network zones to ensure that consumers who are required to connect to a heat network are protected effectively. Similarly, we will consider the potential role for Ofgem in the regulation of the costs of connecting buildings to a heat network within zones. We will engage with Ofgem on these points and undertake further consultation prior to taking any decisions; at the moment, we believe that some responsibilities could fit within the scope of the regulator and the Zoning Coordinator, but we will continue to engage with the matter as the legislation develops. At this stage we envisage that the primary legislation will enable Ofgem to take a different regulatory approach to consumer protection within and outside zones if reasonable and appropriate.

Funding, resources, and skills

We are grateful for stakeholders' responses on funding, resource and skills and will be taking these points into consideration as we continue to develop our policy ahead of implementation. As noted in the consultation, we are mindful

[5] See: https://www.gov.uk/government/consultations/heat-networks-building-a-market-framework

that heat network zoning policy will only be successful where local governments have the right resources to implement their responsibilities effectively and that zoning requirements take into account the new burdens doctrine.

We have noted the concerns of a skills gap within local government, including the technical, project management, commercial and data management skills required to fulfil the role of the zoning coordinator. We will ensure we engage with the relevant parties to inform our policy development going forward.

Designation of heat network zones

Methodology

Question 13: Do you agree or disagree that a standardised national methodology would help to A) enable a transparent approach for identifying and designating heat network zones, B) increase overall efficiency, C) drive consistency, and D) improve understanding for stakeholders?

Question 13	Response				Percentage of responses[2]			
	A	B	C	D	A	B	C	D
Agree	59	51	56	52	82%	71%	78%	72%
Disagree	2	6	5	5	3%	8%	7%	7%
Neither	3	7	3	7	4%	10%	4%	10%
Comment only	8	8	8	8	11%	11%	11%	11%
Blank	21	21	21	21	-	-	-	-

Table 7

Almost all respondents expressing a view agreed with the benefits of a standardised national methodology. Respondents agreed that the national methodology will promote consistency, transparency, and confidence in zoning, but the majority also stated that the methodology must have flexibility to account for different areas' specific local characteristics.

Those who disagreed or neither agreed nor disagreed generally did so on the grounds that a national-level methodology would not sufficiently account for local factors.

Our response to this question is outlined on page 30.

Question 14: Do you agree or disagree with an 'approved document' approach whereby the methodology can be updated without legislative amendments? Would you recommend alternative approaches?

Question 14	Response	Percentage of responses[2]
Agree	58	88%
Disagree	4	6%
Neither	2	3%
Comment only	2	3%

Blank	35	

Table 8

Overall, nearly all (88%) respondents, who provided a response, agreed with the proposed 'approved document' approach.

Twenty-four respondents, including 2 industry trade associations, agreed that the approved document approach would provide a faster and more flexible way to make amendments than a legislative route, allowing the methodology to adapt more quickly to improvements in technology and other changes in the market.

Seven respondents, including one industry trade association, said the approved document approach requires sufficient consultation before changes are made and requires that the industry is informed of any changes promptly once they occur.

Our response to this question is outlined on page 30.

Zone identification and feasibility stages

Question 15: Do you agree or disagree with our proposal for how zone identification should be undertaken?

Question 15	Response	Percentage of responses[2]
Agree	44	63%
Disagree	11	16%
Neither	7	10%
Comment only	8	11%
Blank	31	

Table 9

Sixty-three percent of respondents expressing a view agreed with the government's proposals for zone identification.

Thirteen respondents highlighted that, regardless of the process, local views are required to shape zones correctly. Around half of these respondents (one of which was an industry trade association) agreed with the proposal, with the others disagreeing or expressing no view (3 respondents each).

Suggestions of the local knowledge required included:

- the incorporation of local development plans
- existing or proposed heat networks
- Incorporation of local area energy master planning (LAEMP).

Respondents also highlighted how local knowledge could feed into the national mapping phase (Stage 1a) of the zoning methodology. For example, it was

suggested that large numbers of historic buildings, or areas with low heat-demand density but large heat sources, might affect the viability of a heat network zone from the outset.

Six respondents suggested some changes to the feasibility stage. Suggestions were wide ranging but included:

- incorporating the impact of the procurement or delivery model on commercial viability
- mandating a consistent structure and level of detail for all feasibility studies
- determining the optimal level of detail, trading off accuracy and confidence
- more detailed design
- less detailed design

Five respondents, of whom a majority agreed with the proposals, thought that the approach to zone identification must produce commercially viable zones, although no specific metric was suggested for this. Respondents highlighted that proper costing of options is needed to inform the feasibility stage.

Four respondents want the methodology to expand to other heating technologies, like ambient loops, as well as cooling.

Other views expressed included the need to factor the cost of carbon into the feasibility stage and concerns around the cost and resource required. One industry trade association expressed a preference for maximising the work done centrally to ensure consistency across regions.

Our response to this question is outlined on page 30.

Question 16: Do you agree or disagree that central government should carry out the national mapping identification stage? If you disagree, please explain why.

Question 16	Response	Percentage of responses[2]
Agree	62	85%
Disagree	5	7%
Neither	3	4%
Comment only	3	4%
Blank	28	

Table 10

A large majority (85%) of respondents expressing a view agreed that central government should carry out the national mapping stage.

As in Question 15, 7 respondents considered that local input may be required at this stage, in addition to the local refinement stage.

Five respondents expressed a preference for the model where local authorities lead on both local refinement and feasibility stages of the methodology (stage 1b and stage 2, respectively). The same number of respondents supported the model where the private sector leads (or at least informs) the feasibility stage.

In contrast, 4 respondents did not consider the central authority should play a role in either the national mapping (1a) nor the local refinement (1b) stages.

Our response to this question is outlined on page 31.

Question 17: Do you agree or disagree that the formal zone designation should occur at local government level (allowing for exceptional cases)? If you disagree, please explain why.

Question 17	Response	Percentage of responses[2]
Agree	57	80%
Disagree	7	10%
Neither	4	6%
Comment only	3	4%
Blank	30	

Table 11

A large majority of respondents expressing a view agreed that formal zone designation should occur at the local level.

Fourteen respondents highlighted that local knowledge is key to ensuring that zones are appropriate for the areas they cover. Multiple respondents agreed that having the designation occur at a local level allows more scope for stakeholder engagement and communication.

Six respondents, of whom 5 agreed with the proposal, would like the process to be flexible. Most of these respondents linked this to zones covering multiple local authorities, where questions of governance may arise. An industry trade association mentioned mayoral authorities and Local Enterprise Partnerships as other bodies which could act as Zoning Coordinators. The single respondent who disagreed highlighted that parish councils could be overlooked as potential zones as they are a smaller unit of local government. This respondent wanted zoning legislation to ensure that parish councils also have the ability to designate zones.

The following points were also raised by four stakeholders respectively:

- Local designation is important for accountability and ownership.
- The process of amending zones at a local level needs to be transparent.
- The process of amending zones should be rules-based to ensure consistency between zones.

Of those disagreeing, the most common reason given was that zone designation should be the responsibility of the central authority.

Our response to this question is outlined on page 31.

Question 18: Do you agree or disagree that the BEIS Secretary of State should be able to require local authorities to designate a zone, or designate it him/herself where it has been identified? Please explain your reasoning.

Question 18	Response	Percentage of responses[2]
Agree	48	74%
Disagree	5	8%
Neither	6	9%
Comment only	6	9%
Blank	36	

Table 12

Most stakeholders (74%) expressing a view agree with this proposal.

Of those agreeing, 13 respondents including 2 industry trade associations believe the proposed role for the Secretary of State is required for zoning to work. Many of these respondents argued that without this power there would be no reason for local authorities to implement zoning unless already motivated to develop heat networks within their jurisdiction. One respondent anticipated a risk that failure to designate a zone may give a competitive advantage over nearby areas where zones are designated, and that a power is necessary to mitigate this.

Eight respondents agreed with the proposal provided the power is used sparingly. This includes in extreme circumstances where local government cannot or will not designate a zone.

Six respondents want the power to be accompanied by either an appeals process (in cases where local government disagrees with a zone designated by the Secretary of State) or an investigation into why there was a failure in designating the zone. The latter point was supported by one industry trade association.

Six respondents, of whom 3 agreed and 3 disagreed with the proposal, expressed concern about this power overriding the wishes of local government. They highlighted that doing so could undermine trust in zones and could impact uptake.

Six respondents, of whom the majority agreed with the proposal, would like the Secretary of State to be required to consult with local government and local stakeholders in question before defining the zone.

Four respondents who agreed with the proposal, including one industry trade association, added caveats around funding. In their view proper funding would limit

the need for the Secretary of State to execute this power. In cases where the power is executed, it was felt that additional funding would be required for local government to carry out their responsibility (see Question 10 for cases where the Secretary of State acts as the Zoning Coordinator).

Our response to this question is outlined on page 32.

Key local stakeholders and statutory consultees

Question 19: Do you agree or disagree that the legislation should set out a list of statutory consultees who must be consulted before a heat network zone is designated?

Question 19	Response	Percentage[2]
Agree	60	87%
Disagree	6	9%
Neither	3	4%
Comment only	0	0%
Blank	32	

Table 13

A significant majority of stakeholders (87%) who expressed a view supported the proposal for legislation to include a list of statutory consultees who must be consulted before a heat network zone is designated.

The consultation included an initial list of potential statutory consultees and of those agreeing with the proposal, 15 respondents suggested adding parties to the list of statutory consultees while 3 respondents suggested removing some.

Two respondents disagreed with the concept of statutory consultees due to it resulting in an overly bureaucratic process.

Fifteen respondents who agreed with the proposal, including 2 industry trade associations, recognised that the views of stakeholders should be addressed in a balanced way. Within this group, some stated that the consultation process could be bureaucratic or burdensome in the short term, but in the long run would build trust among stakeholders. Others recognised that balance is required to avoid the risk that resistant statutory consultees delay the development of a zone.

Our response to this question is outlined on page 32.

Government response – Methodology

We are encouraged by the broadly positive responses to the consultation proposals regarding the zoning methodology. We do not intend to make material changes to the proposals that were set out in the consultation.

However as discussed below, we are currently piloting the zoning methodology and our conclusions in this section are therefore subject to change should compelling evidence arise from the pilots that indicates a change of approach is necessary.

As described in the consultation document, the zoning methodology will consist of a national mapping exercise, a local refinement stage, and a feasibility stage. The methodology will include various stages of mapping and modelling, as well as engagement with local stakeholders and statutory consultees. This will help ensure the methodology is sufficiently flexible to account for specific local conditions, which a number of respondents raised as a particularly important consideration. The methodology will also need to consider wider policy issues, such as air quality impact, when designating a zone.

The methodology will be developed by the central authority, who will also issue non-legislative subsidiary documents providing guidance regarding the application of the methodology. As noted in the consultation, our expectation is that this will play a role broadly akin to that of the 'Approved Documents' published for Building Regulations. Once in place, we confirm that updates to these documents will be subject to consultation before implementation.

Primary legislation will provide for the development of the zoning methodology by the central authority, with further details as to its application in practice to be specified in regulations. The development of these regulations, as well as the 'Approved Document' described above, will be subject to further consultation.

Zone identification and feasibility stages

A pilot of the zoning methodology is currently underway in 28 towns and cities across England. This project will provide useful insights and lessons as we develop and refine the methodology ahead of future legislation. We will continue to engage with participants in the pilot to ensure that the methodology includes sufficient flexibility around the administrative level at which zones can be designated. The pilot will also help to refine when and how the views of local actors should shape zones.

As proposed in the consultation, the central authority will be the body who carries out the national mapping exercise to identify areas likely to be suitable for the designation of a heat network zone.

The consultation outlined three possible models for the roles of the Central Authority, Zoning Coordinator, and the private sector in the local refinement and feasibility stages. At this stage, we will retain that flexibility but will consider outputs from the zoning pilot and other ongoing BEIS studies to determine if any of the models are infeasible. A flexible approach will allow the different actors to decide the best split of responsibilities for different zones. This means that units of local government with fewer resources can still contribute to zone identification and act as Zoning Coordinators. We will also consider the points raised by respondents relating to the scope and specification of these stages in the development of the methodology.

As noted above in the context of the Zoning Coordinator role (see page 21 onwards), we confirm that the Secretary of State will be provided with a power to direct local government to designate a heat network zone, to designate the heat network zone on behalf of local government, and to fulfil the functions of the Zoning Coordinator, subject to agreement from the Secretary of State for Levelling Up, Housing and Communities. This power is in order to ensure that the low-carbon heat network sector grows at the pace necessary to meet our net-zero target, but we recognise that central designation of zones should only ever be undertaken with support of the local area and consultation with those affected.

We will consider whether further details of this power should be set out in regulations and will consult on proposals as necessary. We will also consider whether provision is needed to allow appeals against the use of this power.

Key local stakeholders and statutory consultees

There was strong support for the inclusion in legislation of a list of 'statutory consultees' who must be consulted prior to designating a heat network zone. We intend to specify the list of relevant parties in forthcoming secondary legislation (regulations). We will consider suggestions from respondents as to which parties who should be included in the list, which will be subject to further consideration in due course. Noting calls for this aspect of the zoning process to be efficient and workable, we will also consider whether the regulations should specify how statutory consultees' views are to be sought and taken into account, and will address this as necessary in due course.

We have noted the concerns around the funding of Zoning Coordinators. Our response starting on page 21 details how we will approach this topic.

Requiring buildings to connect

Question 20: Do you agree or disagree that the option 3 level of ambition is a proportionate approach to deliver the policy objectives of heat network zoning? Please provide evidence to support your answer.

Question 20	Response	Percentage[2]
Agree	53	72%
Disagree	8	11%
Neither	9	12%
Comment only	4	5%
Blank	26	

Table 14

Nearly three-quarters of respondents expressing a view, including two industry trade associations, agreed that Option 3 level of ambition is a proportionate approach. This option proposed that within a zone 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, would be required to connect to a heat network.[6]

Out of the 53 responses in favour of the proposed approach, 6 highlighted the need to ensure sufficient financial support is available for domestic households and micro-businesses that might be negatively impacted by connection costs, while one respondent suggested the use of interim heating systems until the reliability of the heat network is secured. Fourteen respondents who agreed did not provide further comments.

Respondents who either disagreed or neither agreed nor disagreed questioned the impact of the policy, with 2 respondents asking to redefine 'large' buildings to take into consideration minor refurbishments conducted at large scale, as well as consideration of the financial impact on buildings such as community centres. Three further respondents argued that Option 3 would not be enough to meet environmental targets. Finally, one respondent who disagreed with the proposal highlighted the need to establish the reliability of heat networks before requiring buildings to connect.

Our response to this question is outlined on page 40.

Question 21: Do you think it is likely or unlikely that buildings not required to connect will voluntarily connect to a heat network within a zone? Please explain your reasoning.

Seventy-three stakeholders provided a response to this question.

Thirty respondents stated that financial viability would be the strongest incentive for voluntary connections. A further 2 respondents suggested offering nationwide subsidies to support households to connect. Thirteen respondents argued that commitments to net zero and other carbon reduction goals would incentivise voluntary connections. Five respondents mentioned existing heating systems in place as a factor that would influence decisions, while another 4 respondents underlined the importance of educating the public more on the function of heat networks. Four respondents stated they were confident that, once heat networks have expanded and their reliability and cost effectiveness have been proven, individuals will be more inclined to connect voluntarily.

Finally, 4 respondents expressed their disagreement with the idea of allowing space for voluntary connections but instead encouraged the government to mandate connections across all buildings.

Our response to this question is outlined on page 40.

[6] The other options considered in the consultation were as follows. Option 1: all new buildings and large public sector buildings are required to connect; Option 2: all new buildings, large public sector buildings and large non-domestic buildings are required to connect.

Question 22: Please indicate the kind of buildings you think are likely to connect voluntarily.

Sixty-four stakeholders provided views on this matter.

Twenty-four respondents considered that public sector and social housing buildings would be most likely to connect, followed by private non-domestic establishments (12 responses), domestic consumers (12 responses), large heat users (5 responses), and energy efficient developments (4 responses).

A significant number of respondents considered financial and environmental incentives as the primary factors that could lead to voluntary connections, rather than building type. Specifically, respondents identified financial viability and cost effectiveness as the primary motivation to connect in 22 responses, closely followed by Environmental, Social and Governance (ESG) policies mentioned in 21 responses. Twelve responses referenced existing heating systems in place arguing that their remaining life cycle could deter consumers from switching systems. Ten further respondents highlighted proximity to heat networks and government mandates as determining factors. Finally, 3 responses addressed matters of heat network efficiency and technological viability and building occupants' awareness of their role in decarbonisation as reasons that may incentivise connections.

Our response to this question is outlined on page 40.

Question 23: Do you agree or disagree that annual heat demand of over 100 MWh is the most appropriate threshold to use for large buildings which are required to connect? If not, what would you propose instead?

Question 23	Response	Percentage[2]
Agree	14	24%
Neither	23	40%
Disagree	14	24%
Comment only	7	12%
Blank	42	

Table 15

Twelve respondents either agreed with the proposed threshold or agreed on the condition that it would be reviewed over time. However, a sizeable number of respondents expressed disagreement or concern over the suggested threshold.

Resistance to the proposal was mainly attributed to the proposed threshold failing to take into consideration several factors such as heat demand variability; specifically, 25 respondents suggested that either the threshold is too high or that heat demand is too variable for one number to be sufficient. These respondents offered some alternative suggestions.

Three stakeholders who agreed with the threshold made points regarding the scale at which the threshold should apply: one argued that it should apply to the parts of the building where there are existing shared services, two others thought it should apply where a whole building's heat demand meets the threshold (whereas individual customers within the building may have individual heat demand below the threshold).

Nine stakeholders stated that the threshold might still result in some large buildings (for example, private communally heated establishments or social housing premises) that ought to connect being excluded from the mandate. Another 2 stakeholders stated such a threshold could allow space for 'gaming' among landlords and building owners to meet demands.

Several respondents considered the threshold should be lower, with 3 stakeholders asking the government to lower it to 50 MWh. Two more respondents proposed calculating heat density instead of consumption per annum (the suggested value was 25-30 kWh per square meter per annum). Other respondents, including one industry trade association, suggested basing the threshold on a building's floor area would be a more reliable approach as a building's heat demand can vary from year to year. Finally, one respondent suggested that connection mandates should apply to all buildings that meet one or both of the following criteria: i) static criteria, for example *x* m Gross Internal Area or *y* kW gas grid connection capacity; ii) dynamic criteria of *z* MWh average annual heat demand over a defined period.

Our response to this question is outlined on page 40.

Cost of connections

Question 24: Which of the above two broad options do you consider preferable regarding who should pay for connection costs and why? Are there other options we should consider?

Question 24	Response	Percentage[2]
Option 1: government leaves it up to contractual negotiations between the heat network and the buildings to be connected to determine who pays for what element of the connection infrastructure.	10	14%
Option 2: government introduces rules (potentially cost caps) as part of zoning which prevent heat networks from charging the buildings for connection to the network. The national heat network regulator would have oversight of this regulation.	33	45%
Other	17	23%
Comment only	13	18%
Blank	28	

Table 16

While the majority of respondents with a view (45%) preferred Option 2, the responses to this question included a diverse set of views. One industry body preferred Option 1, while another had no preference.

Fifteen respondents, of whom the majority preferred Option 2, highlighted that a requirement to connect puts the supplier into a monopolistic position, and therefore the regulation of prices is necessary to reduce the risk of profiteering.

Eight respondents who preferred Option 2 stated that cost caps or other forms of regulation will limit variation between different networks and prevent developers in zones from taking advantage of their monopoly position compared to those outside zones.

Four respondents who preferred Option 2 believe that regulating connection costs has the effect of incentivising connection and preventing consumers being priced out of the market.

Some respondents, while considering that Option 2 is the preferred approach, proposed some changes:

- Seven respondents suggested connection costs should be reclaimed through energy bills rather than via a single connection fee. One respondent suggested that suppliers should offer both options to their consumers.
- Six respondents suggested that connection costs should be supplemented in some way by governmental support. This ranged from discretionary grants to socialising the costs of connection via social welfare.

Those who preferred other options (either Option 1 or a different approach), gave the following reasons:

- Four believe that Option 2 is unfair as it potentially raises costs for existing customers or those not mandated to connect.
- Three stated that Option 2 could lead to higher prices through higher standing charges or increases in prices for existing customers.

Twenty-two respondents proposed some form of blended approach, or an alternative approach including:

- Linking the cost of connection to a fixed percentage of the installation cost of an air source heat pump or other on-site decarbonisation solution. An industry trade association which supports neither option prefers this approach.
- Putting in place a “demand guarantee” to underwrite the risk of the number of connections.
- A “PipeCo” approach – this is a financing model in which a developer builds the network infrastructure, sells it to a body backed by institutional finance (the “PipeCo”), then operates the network whilst paying the PipeCo a charge to use the infrastructure.
- A standard methodology for calculating appropriate connection costs.
- Allowing the Zoning Coordinator or local government to determine the best option given their local characteristics.

Three respondents stated that, regardless of the approach taken, an appeals process must be in place if connections costs are deemed too high.

Our response to this question is outlined on page 40.

Exemptions

Question 25: Do you agree or disagree that a process is necessary to assess, where requested, whether an individual building should be exempt from the requirement to connect to the heat network within a zone?

Question 25	Response	Percentage of responses[2]
Agree	63	82%
Disagree	11	14%
Neither	2	3%
Comment only	1	1%
Blank	24	

Table 17

The majority of stakeholders that expressed a view (82%) agreed that an exemption process is necessary but expressed a range of opinions regarding its implementation.

Most of the respondents who agreed with the proposals stated the need for a strict standardised tool with clear, objective instructions that does not allow for too many exemptions to be granted. Similarly, 11 respondents who disagreed did so on the basis that a large number of buildings would apply for an exemption should a process be in place, which would undermine the policy objectives.

Three further respondents disagreed with the concept of exemptions in general, but argued that buildings should be retrofitted instead, or have the right to appeal for a deadline extension. Similar concerns were expressed by respondents who otherwise agreed with the proposals.

Finally, significant numbers of responses highlighted the matter of costs: 7 respondents emphasised the need to ensure that connection costs as well as costs for the exemption process do not become a burden to consumers, while 6 others said the process needs to be managed locally/using local criteria or that costs for the process should be locally determined (on top of the centralised/nationwide exemption criteria and oversight by central government).

Our response to this question is outlined on page 40.

Question 26: Do you agree or disagree with the proposed exemption criteria that would be used to assess the viability of a particular building? If you disagree, please explain your reasoning.

Question 26	Response	Percentage of responses[2]
Agree	45	65%
Disagree	15	22%
Neither	8	12%
Comment only	1	1%
Blank	32	

Table 18

While a majority of respondents who expressed a view agreed with the proposed exemption criteria, the consensus across all three response options was the need to consider multiple criteria before granting or denying an exemption: respondents mentioned costs and existing heating systems in place most frequently.

In terms of the proposed criteria, 3 respondents stated that distance from the heat network should not be a factor but that networks should reach the buildings. Respondents largely agreed with impact on consumers' bills and affordability being one of the factors, although one respondent said local authorities should pay for those connections rather than granting buildings an exemption. Another suggested targeted social tariffs should be considered that could be offered to qualifying customers once the building had been connected.

Several responses mentioned potential carbon metrics: 3 respondents highlighted the need to keep the threshold (and the exemption system in general) under review and 2 respondents proposed changing metrics for carbon emissions to kWh/min and £/tonne CO_2 respectively. Finally, 4 respondents stated that different building types would need different low carbon threshold values.

Our response to this question is outlined on page 40.

Timescales and triggers for connecting

Question 27: Do you agree or disagree with the proposed trigger points for requiring buildings to connect to heat networks?

Question 27	Response	Percentage of responses[2]
Agree	46	73%
Disagree	8	13%
Neither	9	14%

Comment only	0	0%
Blank	38	

Table 19

Forty-six respondents broadly agreed with the proposed trigger points. However, 10 respondents included conditions and/or additions to the proposed list: one respondent suggested that it should be made explicit to building owners exactly when a heat network will be available to connect to; 2 respondents emphasised the importance of a rigid system that doesn't allow for loopholes and one respondent suggested empowering the Zoning Coordinator to challenge developers on new projects. One respondent further suggested that buildings should commit to the pledge to connect to a heat network now. One respondent raised the matter of establishing strong communication and data collection by building owners to ensure that the trigger points are coordinated. Finally, four respondents raised the need for a clear definition of 'major refurbishments' which was proposed in the consultation as a potential trigger.

Respondents who stated that they either 'disagree' or 'neither agree nor disagree' with the proposals provided a range of views. Five respondents mentioned that tighter deadlines for connections are needed to avoid building owners using their existing heating systems for as long as possible. Two respondents pointed out that criteria (b) to (e)[7] don't give the level of certainty required to the heat network developer as they leave control or final determination largely in the hands of the building developer/occupier. These respondents highlighted that only criteria (a)[8] should be valid as that can then be locked into the business model of the heat network developer and keep it under their control. Finally, one respondent suggested tighter deadlines are necessary to avoid heat networks being built out too slowly and at much higher costs, which developers might then pass on to the consumer. Instead, the respondent recommended pushing buildings to pledge pre-emptively to connect when it is possible to do so.

Our response to this question is outlined on page 40.

Question 28: Do you agree or disagree with the proposed grace period of 10 years for buildings to connect where an earlier trigger point does not apply? Please explain your response and suggest alternatives if you disagree.

Question 28	Response	Percentage of responses[2]
Agree	38	58%
Disagree	21	32%

[7] Proposed criteria b) to e) are as follows: b) construction/completion dates for new developments; c) major refurbishments of existing properties; d) when existing heating systems are replaced; e) other changes or regulatory requirements, including those relating to property sales.
[8] Proposed criteria a) is as follow: a) delivery dates of the network to provide heat, which is likely to be staggered/phased across a heat network zone.

Neither	6	9%
Comment only	0	0%
Blank	36	

Table 20

Although 58% of respondents expressing a view stated that they broadly agree with the proposals, there was disagreement to both the length of the grace period as well as the proposed legislative requirement to connect.

Out of the 38 respondents who agreed with the proposals, only 19 were explicitly in favour of the 10-year grace period. By contrast, 25 respondents (the majority of whom disagreed with the proposal) including 2 industry trade associations challenged the length of the grace period as too long, with 17 of them suggesting a period of up to 6 years instead.

Finally, 7 more respondents challenged the notion of a legal requirement to connect and suggested incentivising connections instead would be more appropriate.

Our response to this question is outlined on page 41.

Government response – Requiring buildings to connect

Having considered responses to the consultation, we confirm that we are minded to pursue the preferred option for the categories of buildings required to connect as set out in the consultation, subject to future consultation on how these buildings are defined.

We have noted the views expressed regarding the likelihood of other buildings in a zone choosing to connect to a heat network. Given the overall objective of the zoning policy is to determine areas where heat networks can provide the lowest cost solution for decarbonising heat, we are reassured that stakeholders consider the strongest incentives for voluntary connections are on financial and/or environmental grounds. We will continue to work with the industry and local government to ensure maximum environmental benefits and minimal financial impact on consumers for connection to heat networks.

We note the concerns raised around the proposed 100 MWh annual heat demand threshold for mandating connection. We acknowledge that this threshold may inadvertently exclude some buildings that would be well suited to connect to a heat network. We also recognise that using an annual consumption threshold could lead to practical difficulties where usage fluctuates above and below the threshold from year to year. We will consider this issue further and consult in due course on the level and metric to be used.

Cost of connections

We sought views on two options to determine who should pay for connection costs. Option 1 would leave the cost of connection up to negotiations between

the building owner and the heat network and Option 2 would introduce rules preventing connection charges, to be overseen by the heat network regulator.

Respondents to this question provided several options for how to determine a fair and reasonable cost of connection. At this stage, we have not committed to a specific pricing methodology.

After considering the views raised in this consultation, our intention is to take forward neither of the two options consulted on, both of which lacked a majority of support. Instead we will consider a proposal for a standardised methodology for calculating appropriate connections costs which will be considered as part of wider price regulation work. Further details on consumer protections within zones is given from page 59 onwards.

We will explore in more detail whether consumers may appeal connection costs, alongside other elements of zoning which may require an appeals process. This will be subject to further consultation as necessary.

Exemptions

A majority of respondents agreed that an exemption process is necessary and we will include provisions enabling this in primary legislation, with further details of how the exemptions process will operate to be set out in secondary legislation.

We also note the widespread agreement to a robust and standardised tool for assessing exemption requests to ensure a consistent approach is taken, and it remains our intention to develop such a product. We agree with respondents that this approach could also help prevent significant numbers of exemptions being granted. As noted in the consultation, we envisage that this tool would be part of a separate methodology sitting outside the regulations.

As noted in the consultation, we envisage that a list of criteria will be used to assess the viability of requiring a particular building to connect to the heat network where an exemption from the requirement to connect has been sought. This will be provided in secondary legislation. We are grateful to the range of views and suggestions provided by respondents to the consultation. We will take these into account in developing our proposals in this area, which will be subject to further consultation.

Timescales and triggers for connecting

Respondents expressed a range of views on the timescales and triggers that should apply where a building in a zone is required to connect to a heat network. We will take these points into account in developing our proposals, which will be subject to further consultation and set out in regulations.

Where an earlier trigger point does not apply, these regulations will specify the deadline by which a building required to connect must do so. The consultation proposed this should be set at 10 years from the point a building is requested to connect. However, we acknowledge that a significant number of respondents

considered this grace period to be too long and in light of this feedback we confirm our intention to shorten it. Our proposals will be subject to further consultation in due course.

Heat sources

Question 29: Are there any reasons why owners of heat sources should not be required to provide information to the Zoning Coordinator?

Question 29 received a total of 58 responses.

Stakeholders largely agreed that heat sources should be required to provide information to the Zoning Coordinator and maintain full transparency. However, eight respondents expressed concerns on matters of data publication and commercial sensitivity: specifically, one respondent argued that unpublished information should not be required to be disclosed or made available to the public, while another suggested that information should be provided via consultation.

Our response to this question is outlined on page 47.

Question 30: Are there any reasons that we should not include powers to require heat sources to connect to a heat network (provided it is technically and economically viable)? Please explain your reasoning.

Question 30 received a total of 65 responses.

Forty respondents broadly agreed that powers to require heat sources to connect to a heat network are appropriate. It was felt that any requirement would not reduce the ability of heat source owners to negotiate fair prices for the heat offtake, and would also prevent them from making excessive profits. Nine more responses pointed out that it is essential to explain how heat sources will be made to connect and what their contractual obligations will be; they also suggested that 'technologically and economically viable' can be subjective criteria and there is a need for robust guidelines in this area. Finally, six respondents stressed that legal complexities may arise from a requirement to connect and urged BEIS to consider incentivising heat sources rather than forcing them to connect (although three acknowledged this might not work).

Our response to this question is outlined on page 47.

Requirement to provide information

Question 31: Do you agree or disagree that a legislative requirement for third parties to provide relevant information would be necessary to help ensure the successful designation of heat network zones?

Question 31	Response	Percentage of responses[2]
Agree	55	87%
Disagree	4	6%
Neither	3	5%
Comment only	1	2%

Blank	38	

Table 21

Stakeholders welcomed the proposal that legislation would place a requirement on third parties to provide information relevant to the development of heat networks in a zone. Many argued it is essential for both the successful designation of heat network zones and for wider energy forecasting and planning purposes.

Our response to this question is outlined on page 47.

Question 32: Do you have views on the scope of the proposal to require information, specifically: A) who can request the information; B) the information/data that may be sought, C) the range of parties to whom the requirement could apply?

Question 32 received a total of 46 responses.

Stakeholders broadly considered that the Zoning Coordinators, local authorities and the central authority should be empowered to request information. Some respondents also suggested that the heat network developer or operator could also be eligible. In terms of the information that may be sought, most respondents agreed with the consultation proposals[9] or made additional recommendations including temperature, specific heat source, heat demand, details of the building and energy usage. Some respondents stressed the importance of a clear, coordinated, and consistent mechanism to collect data without burdening organisations financially. Finally, in terms of the range of parties to whom the requirement could apply, most respondents considered it necessary for data to be requested from as wide a range of relevant parties as possible. However, some respondents noted that some data may be commercially sensitive and, where this is the case, they should not be publicly available.

Our response to this question is outlined on page 47.

Question 33: What rules and mechanisms do you consider should be in place to protect the interests of parties who are subject to the requirement?

Question 33 received a total of 40 responses.

Stakeholders largely considered that data should be open and accessible to all, and that existing data protection legislation should offer sufficient protection. However, 21 respondents either expressed concerns with the open data model for reasons of commercial sensitivity, or highlighted the need for a process of appeal and for a clear mechanism to prevent the misuse of data. Finally, four respondents asked for reassurances that the costs of obtaining information would not be overly burdensome.

[9] The consultation proposed that the following type of information would be in scope of the requirement: data on specific heat source (e.g. generation, specification, condition, age); data on heat demand (e.g. consumption profiles, type of current heating system, age of current heating system); data on other heat system assets (e.g. current heat networks, radiator systems) and, if available, information on future plans for assets and heat demand.

Our response to this question is outlined on page 47.

Question 34: Do you agree with the proposal that the Zoning Coordinator should be able to delegate these powers to a limited number of heat network operators/developers in the zone in some circumstances to facilitate build-out of the zone and as long as there was appropriate oversight from the Zoning Coordinator?

Question 34 received a total of 50 responses.

Fourteen respondents agreed unconditionally with the proposals, whereas 16 respondents agreed on the condition that a very strict and rigorous monitoring and reporting process is established to help prevent heat network operators or developers from abusing their delegated powers. Fifteen respondents argued that only the Zoning Coordinator should have the authority to request and collect data.

Our response to this question is outlined on page 47.

Low carbon requirement

Question 35: Do you agree or disagree that heat networks developed in zones should be subject to a low carbon requirement?

Question 35	Response	Percentage of responses[22]
Agree	72	90%
Disagree	2	3%
Neither	6	8%
Comment only	0	0%
Blank	21	

Table 22

Question 35 received a total of 80 responses.

Of those who responded, 90% agreed that heat networks developed in zones should be subject to a low carbon requirement. Nearly one-third of stakeholders who agreed with the proposal noted that a low carbon requirement would be key to ensure that heat networks developed in zones help contribute towards net zero targets. One respondent in particular stressed that decarbonisation requirements should be a fundamental part of heat network planning in general. However, a significant number of respondents put forward caveats as discussed below.

Several respondents, including two industry trade associations, flagged the importance of ensuring that any low carbon requirement introduced within heat network zones is aligned with decarbonisation regimes outside zones (for example the carbon requirement under the heat network Market Framework or Building Regulations). Some respondents requested further clarification on this point.

Several respondents considered that existing heat networks should be subject to a transition period, rather than requiring compliance with any low carbon requirement from the outset, as this could help reduce risk of stranded assets. Similarly, some respondents including a trade association felt that new heat networks should also be allowed a transition period. It was noted that this approach could deliver quicker build-out of networks where either a low carbon heat source is not available initially, or not viable until a critical mass of consumer consumption is reached. Several respondents felt that the Zoning Coordinator should be able to determine an appropriate timescale for decarbonisation.

Our response to this question is outlined on page 47.

Question 36: Do you have a view on what level, or what mechanism, we should use to set a level of CO2 emissions per kWh as appropriate?

Question 36 received a total of 59 responses and a range of views were expressed.

A general theme raised by several stakeholders, including an industry trade association, was the need to ensure the target was both deliverable and consistent with carbon requirements set by other policies, such as the heat networks Market Framework, the Green Heat Network Fund or Building Regulations.

Several respondents proposed a specific carbon intensity figure – ranging from 182gCO_2/kWh (reflecting the carbon intensity of gas) to 5-10gCO_2/kWh – or a particular reference point. For example, a building-level heat pump, the carbon intensity of the electricity grid, or consistent with delivery of the government's net zero targets. Other stakeholders felt the level should be set as low as reasonably practicable.

Some stakeholders raised more general points, including the possibility of stricter requirements for new heat networks compared to existing networks, requirements becoming more stringent over time, or the need to reflect local conditions (for example relating to availability of heat sources).

Our response to this question is outlined on page 47.

Question 37: Do you agree or disagree that the low carbon requirement should apply to all new connections in zones (including new connections of existing heat networks), but not to heat delivered to existing connections? If you disagree, please explain your reasoning.

Question 37	Response	Percentage of responses[2]
Agree	39	57%
Disagree	15	22%
Neither	5	7%
Comment only	9	13%

Blank	33	

Table 23

Question 37 received a total of 68 responses.

Seven respondents who agreed with the proposal, including one industry trade association, were of the view that the proposed Heat Network Market Framework, rather than zoning policy, should take forward decarbonisation of existing heat networks. This view was also shared by one respondent who disagreed with the proposal and one respondent who provided comments only.

The same industry trade association and one respondent who provided comments only considered that the low carbon requirement should not apply to the heat delivered to existing connections as some of these networks would have existing contractual obligations in relation to carbon performance.

Three respondents who agreed and one respondent who disagreed felt that consideration was needed regarding the potential cost impacts to consumers on existing heat networks.

Seventeen respondents who agreed did not provide any further comments.

Around two-thirds of those who disagreed considered that the low carbon requirement should apply to all heat networks in zones, with three respondents suggesting that a grace period may be necessary for existing networks. A grace period for existing networks was also suggested by four respondents who agreed, three respondents who provided comments only and one respondent who neither agreed nor disagreed with the question.

Two respondents who disagreed, two respondents who provided comments only and one respondent who agreed noted that requiring an existing heat network to meet the low carbon requirement could require significant investment or prevent it from expanding, which would risk undermining the development of heat networks.

Government response – Designation of heat network zones

Heat sources

Given their importance in enabling cost-effective, low carbon heat networks, the consultation proposed that potential heat sources should be required to provide information to Zoning Coordinators to help them assess the technical and economic case for connection. It also proposed powers to require heat sources to connect if information sharing and cooperation between heat sources and zoning coordinators and/or heat network developers does not deliver the intended outcomes within a timeframe to be determined.

Generally, consultees agreed with the proposal regarding the provision of information, which we intend to implement. However, we note that some concerns were raised regarding the potential commercial sensitivity of this

information, and we will ensure that protections are in place to prevent inappropriate access or sharing.

Most respondents supported the proposed power to require heat sources to connect. We intend to include this power in primary legislation, with further details – for example, to specify which heat sources can be required to connect and in what circumstances – to be included in secondary legislation. This will be subject to further consultation in due course.

Requirement to provide information

We note the strong support for the proposal to introduce a requirement on parties within areas likely to be heat network zones to provide data and information for the methodology, so that zones can successfully be designated. We confirm that this power will be included in primary legislation, allowing the zoning coordinator or the central authority to request certain data from specified parties.

The parties subject to the requirement and the specific information that may be requested will be subject to further consultation. As noted in the consultation, we will also consider in further detail how the power may be exercised. Each of these elements will be set out in forthcoming secondary legislation.

We acknowledge concerns around access to commercially sensitive data. While our intention is to work towards a market where data is more discoverable, searchable, and understandable we recognise the need to strike an appropriate balance.

We confirm that the Zoning Coordinator will be able to delegate its powers to request information from heat network developers within a zone. As stated in the consultation, the Zoning Coordinator would be required to take on oversight of the powers and have appropriate safeguards on data collection in place to ensure parties whose data was sought were not being unduly burdened, and to avoid anti-competitive practices. The circumstances in which the Zoning Coordinator could delegate its powers, and the safeguards to ensure it is used appropriately, will be subject to further consultation and set out in regulations. As part of this we will give further consideration as to whether the Zoning Coordinator may delegate other aspects of its role in developing heat networks within zones, the circumstances in which it may do so, and to whom.

Low carbon requirement

As stated in the consultation, one of our key policy objectives is that heat network zoning delivers carbon savings at scale and pace. We are pleased to see that the importance of the policy delivering carbon savings was referenced by a significant number of respondents. We therefore confirm our intention to introduce a requirement for new networks in zones to be required to meet a low carbon requirement.

Respondents provided various suggestions as to what level the requirement should be set at, and we are also considering whether an escalating standard

may be an appropriate approach, as well as other approaches for regulating the low carbon requirement. We will take these points into account in developing our proposals in this area. This will be subject to further consultation and the threshold will be set out in secondary legislation. As set out in the consultation, Zoning Coordinators should be able to take local carbon plans into account in determining conditions of heat network operation in a zone and may be able to set more ambitious decarbonisation targets within zones.

We envisage Zoning Coordinators may introduce grace periods prior to the requirement applying, and intend to develop guidance concerning the application of this aspect of the framework. Related to this, and as was flagged in several responses, we acknowledge that consideration is needed as to how the zoning low carbon requirement may interact with similar obligations. In particular, the low carbon requirement which will apply to heat networks more broadly under the market framework, as well as similar low carbon requirements in place and to be introduced by other heat and buildings policies. It is our intention that low carbon requirements will apply sooner for heat networks within zones compared to those outside of a zone. We will consider responses made on this point in developing our proposals for zoning with a view to ensuring a consistent and workable approach.

We also acknowledge that a range of views were expressed regarding how to treat existing networks which are in areas subsequently designated as heat network zones. We intend to pursue the approach proposed in the consultation, whereby heat networks which are operating in a zone prior to its designation would not be subject to the low carbon requirement unless they subsequently expand post-designation. In this case a proportion of heat delivered commensurate to the new demand would have to meet the low carbon requirement. These aspects of the policy will be subject to further consultation and relevant provisions will be set out in regulations. Our objective is to create consistency and alignment between new and existing networks within a zone. In addition, we will also need to ensure consistency and alignment with developments in other relevant policy areas across government, including building regulations, which contribute to delivering the government’s target of net zero emissions by 2050.

Delivery and operation of heat networks in zones

Heat network deployment strategy

Question 38: Do you consider there to be a potential conflict of interest between a local government fulfilling the functions of the Zoning Coordinator and delivering the heat network in a zone? If yes, how could this be mitigated?

Question 38 received a total of 58 responses.

Thirty-nine respondents expressed a clear 'yes' or 'no' view on this question. Twenty-two saw no potential conflict of interest, while 17 did. Many of these responses were caveated, as detailed below. Nineteen respondents provided comments without explicitly agreeing or disagreeing.

Twenty-one respondents, including an industry trade association, stated the Zoning Coordinator role should be an independent body. This included four respondents who saw a potential conflict of interest. Respondents highlighted the independent nature of planning bodies within local authorities as an example. A smaller number of these respondents supported the introduction of an oversight board or other independent body only in the case when local government plans to act as the Zoning Coordinator and heat network developer.

Twelve respondents believe that third-party involvement is required to reduce any potential conflicts of interest. The most common suggestion was for oversight from the central authority to ensure that conflicts of interest do not arise. Examples provided included mandating that local authorities participate in fair and open competition if they wish to act as developers, providing a route of appeal via a third-party body, having the regulator oversee the competition, and having the zoning coordinator role as a third-party body as a standard.

One industry trade association preferred a separation between the Zoning Coordinator role and developer roles in the case of local government.

Our response to this question is outlined on page 57.

Question 39: Do you agree or disagree that the Zoning Coordinator should have the flexibility to determine whether a zone is delivered by one developer or several developers?

Question 39	Response	Percentage of responses[22]
Agree	52	79%
Disagree	7	11%
Neither	7	11%

Comment only	0	0%
Blank	35	

Table 24

Question 39 received a total of 66 responses.

Most respondents agreed with the proposal, including two trade associations.

Fourteen respondents, including one trade association, support flexibility in allowing the Zoning Coordinator to choose the number of zone developers, highlighting issues such as the specific geography of the zone, existing networks, and having the ability to choose the best low carbon option. Other respondents highlighted that this could be a way to introduce competition into zones.

The seven respondents who disagreed provided a range of views though none was dominant. These included preferring single developers, defaulting to open competition, and defining the number of developers in the methodology.

Our response to this question is outlined on page 57.

Exclusive rights to connections

Question 40: Do you agree or disagree that some zones could opt for heat network developers to have exclusive rights to connections in a zone/area of a zone?

Question 40	Response	Percentage of responses[22]
Agree	40	63%
Disagree	18	28%
Neither	4	6%
Comment only	2	3%
Blank	37	

Table 25

Question 40 received a total of 64 responses.

Most respondents (63%) providing a view agreed that some developers could be granted exclusive connections rights within a zone, though a significant minority (28%) objected.

The view of 21 respondents, including two industry trade associations, was that exclusive connection rights are only acceptable under specific circumstances or with outline conditions or other conditions attached. The types of conditions mentioned included effective regulation and robust review processes.

Seven correspondents stated that a developer should only be entitled to exclusive rights if they are attached to delivery and performance measures. Respondents highlighted the need for robust mechanisms to rescind exclusive rights when the developer does not meet these conditions.

A smaller group of six respondents considered that exclusive rights should be the default approach, as it would provide the greatest certainty for developers.

The main reason for disagreeing with the possibility of exclusive rights was concern about competition, voiced by 10 respondents. Seven respondents disagreed for several other reasons.

Many respondents highlighted the importance of guaranteeing a certain level of demand within a zone to make networks investable.

Our response to this question is outlined on page 57.

Question 41: Do you agree or disagree that use of outline conditions should be mandatory where exclusive rights are proposed?

Question 41	Response	Percentage of responses[22]
Agree	44	75%
Disagree	4	7%
Neither	7	12%
Comment only	4	7%
Blank	42	

Table 26

Question 41 received a total of 59 responses.

75% of stakeholders expressed a view supporting the use of outline conditions.

Eight respondents did not support exclusive rights, stating outline conditions are not applicable to them. One respondent who disagreed claimed that exclusive rights should be under the purview of the regulator rather than contract conditions.

Five respondents agreed with outline conditions only if mechanisms are in place to protect consumers when these conditions are breached.

Our response to this question is outlined on page 57.

Ownership and procurement model

Question 42: Do you agree or disagree that all the models described in Table 4 could be employed in zones? Do you consider there to be any other delivery options? Please provide evidence to support your view.

Question 42	Response	Percentage of responses[22]
Agree	39	62%
Disagree	7	11%
Neither	9	14%
Comment only	8	13%
Blank	38	

Table 27

Question 42 received a total of 63 responses.

Most respondents (62%), including two industry trade associations, agreed that all delivery models could be employed within zones.

Fifteen respondents considered that there should be limits or controls on Category 2 (third party delivery) and Category 3 (open market delivery). Those who agreed or expressed no clear view mainly had concerns that the open market approach is uncertain and risks creating inefficient networks or stranded assets. Those disagreeing would limit the use of category 3 for the same reasons. One trade association would oblige third party developers to commit to using best endeavours to develop within a zone.

Six respondents considered there should be limits on Category 1 (public sector delivery). They mostly disagreed or expressed no view, with one agreeing to the proposal. Most concerns related to conflicts of interest if local government were to act as both the Zoning Coordinator and as the developer.

Nine respondents, most of whom agreed with the proposals, provided alternative arrangements. These included: splitting different elements of the heat networks between different parties; including ambient heat networks; an electricity grid style model; and centrally-run procurement.

Four respondents asked for a stronger steer from the government on the preferred approach.

Our response to this question is outlined on page 57.

Question 43: What would need to be in place for an open market model to work? Do you see any risks with this approach?

Question 43 received a total of 52 responses.

The most widespread concern around the open market model, including those from two trade associations, was that it would lead to inconsistent or non-strategic

development of networks in zones. These concerns fit into the following broad themes:

- "Cherry-picking", where developers only connect the financially attractive areas of zones.
- The development of multiple networks in the same area causing confusion, with fragmented and overlapping infrastructure.

Suggested mitigations included:

- Limiting open market development to subsections of zones.
- Defining a time limit for organisations to register an interest in the zone or to submit robust proposals – this is the view of one trade association.
- Giving Zoning Coordinators some control with a “concessions by application” model.
- Having the Zoning Coordinator build or procure the building of the pipework for the zone, with suppliers competing for delivery of heat to consumers.

Thirteen respondents stated that for an open market approach to work, emphasis must be placed on regulation, especially focussing on consumer protection and price regulation.

In addition, four respondents emphasised that common standards, both technical and carbon standards, need to be established.

Three respondents emphasised the importance of transparency, either in the setting of costs or in the governance of zones.

Six respondents did not support the idea of an open market approach. Some of the reasons provided included the incompatibility between a natural monopoly and competition, and similarities of this approach to the status quo outside of zones.

Our response to this question is outlined on page 5757.

Question 44: Do you agree or disagree that the Zoning Coordinator should have the flexibility to choose the ownership and delivery model?

Question 44	Response	Percentage of responses[22]
Agree	34	56%
Disagree	13	21%
Neither	11	18%
Comment only	3	5%
Blank	40	

Table 28

Question 44 received a total of 61 responses.

A small majority (56%) of stakeholders, including two industry trade associations, agreed with the proposals.

Ten respondents, of whom the majority agreed with the proposal, highlighted that an appeals process via an independent body and transparent governance of the decisions around the delivery model should be emphasised. This oversight could come from the central authority, the regulator, or a governance board.

Seven respondents, including one industry trade association, highlighted that the central authority must provide guidance and support to local authorities in making this decision.

One trade association highlighted that, different areas of zones may benefit from different delivery models.

Six of the respondents who disagreed preferred an open market approach to be the only or the default approach. One respondent stated that the public sector should only intervene in cases where a private developer is unwilling to take on the zone.

Additionally, three respondents – of whom the majority disagreed with the proposal – considered that the process to decide on the delivery method should be based on stakeholder or consumer preferences following consultation.

Our response to this question is outlined on page 57.

Question 45: We estimate that it may take a heat network developer one full day to familiarise themselves with the requirements of the regulation and disseminate to teams. Based on your view of the proposals in this consultation, do you agree or disagree with this familiarisation assumption?

Question 45	Response	Percentage of responses[22]
Agree	9	20%
Disagree	29	64%
Neither	4	9%
Comment only	3	7%
Blank	56	

Table 29

Question 45 received a total of 45 responses.

A majority (64%) of stakeholders, including one industry trade association, disagreed that one day would be enough for a heat network developer to familiarise themselves with the requirements.

Of those expressing a view, 32 respondents stated that this is only possible if those familiarising themselves are already experts or developers familiar with the heat network landscape. They felt that one day would be the absolute minimum, and in many cases it could take longer.

Our response to this question is outlined on page 57.

Government response – Heat network deployment strategy

We note the range of views on the potential conflicts of interest when local government acts as both the Zoning Coordinator and the developer in a zone. However we also believe that existing arrangements already enable local authorities to both develop and approve heat networks, and that sufficient safeguards can be developed to ensure conflicts of interest do not negatively impact on people within zones. As noted in the response relating to the role of the Zoning Coordinator above, we will consider in due course more detailed aspects of how the Zoning Coordinator is established, governed, and funded. We envisage this will also include further consideration regarding conflict of interest, including how to incentivise competition where a local government body is both the heat network developer and the Zoning Coordinator. We will also consider the role that transparency can play in managing any conflict of interest.

Single or multiple networks

We propose that Zoning Coordinators will have the flexibility to decide how zones are delivered, however these decisions will be supported by guidance issued by BEIS.

In order to ensure that Zoning Coordinators can make impactful decisions about how networks are developed within zones we consider it appropriate that Zoning Coordinators should be able to veto developments of heat networks within their zone if the network does not fit within their overall strategy for delivering growth. The power will be defined in more detail in regulations. Execution of this power will also need to be consistent with the methodology and any national guidance on zone delivery.

Where the Zoning Coordinator appoints heat network developers and heat network operators, we intend for there to be a duty to promote effective competition.

We are aware that leaving decisions about zone development solely in the hands of Zoning Coordinators could risk an under- or undeveloped zone. We will explore the impact of introducing a provision whereby zones become “open” after a set period following designation of a zone, should the Zoning Coordinator not take the appropriate steps to develop the zone. We understand there are concerns with open zones, including the risk that they would undermine the strategic development of a zone. Therefore, alongside this option we will also consider other routes for ensuring a zone is developed, such as a hybrid approach where the Secretary of State intervenes to decide an approach, or the role that a ‘concession-by-application’ model could play (whereby private heat networks apply for a specific concession area). We envisage that any intervention would be subject to specific timeframes which detail the speed at which the networks should be delivered. This provision will be subject to further consultation, and set out in regulations.

Exclusive rights to connections

We confirm that Zoning Coordinators will have the option of awarding heat networks exclusive rights to connection within zones. As noted in responses to the consultation, this approach will provide heat network developers with greater certainty. The awarding of exclusive rights will only be allowed after the Zoning Coordinator has run a competitive process for appointing the developer and operator and set terms on the operation of the zone or area within a zone.

We note that some respondents caveated that their support for exclusive rights was in specific circumstances or with other conditions attached where Zoning Coordinators choose to award exclusive rights, we confirm that the heat network developer will be subject to a set of outline conditions that the Zoning Coordinator will set. We envisage that the design of these outline conditions will be supported by guidance from the central authority, which the Zoning Coordinator will be expected to have regard to. The outline conditions and accompanying guidance for granting exclusive connection rights will be published as “approved documents”, like those documents that we proposed will accompany the methodology.

Consumers will have access to appropriate redress should developers fail to comply with their outline conditions. The conditions under which this applies will be outlined in regulations.

Ownership and procurement model

Stakeholders provided a range of views in response to the questions in this section. We note that most respondents considered that each of the ownership and delivery models set out in the consultation was feasible. At this stage we therefore do not want to prevent certain approaches from being taken and to ensure that Zoning Coordinators have flexibility to choose the most appropriate model to be deployed in a given location. Central government will develop guidance that Zoning Coordinators can use to select a development model.

Finally, we note that most respondents did not agree with our estimate about time taken for heat network developers to familiarise themselves with the regulatory framework. We will factor this into our analysis.

Consumer implications

Question 46: Do you agree or disagree that a requirement to connect provides sufficient justification for extending certain consumer protection measures to all consumers who are required to connect, including owners of large non-domestic buildings?

Question 46	Response	Percentage of responses[2]
Agree	52	76%
Disagree	2	3%
Neither	11	16%
Comment only	3	4%
Blank	33	

Table 30

Question 46 received a total of 68 responses.

Eighteen respondents stated that any requirement to connect should be reflected in a fair pricing system to ensure charges are not disproportionate. However, 13 respondents noted that commercial contracts can be complicated, and they would need to see more of the fine detail on the precise consumer protections that were proposed to be extended before coming to a decision.

Three stakeholders commented that standardised price regulation could increase the speed of customer onboarding. Others noted that standardisation may also provide greater security and confidence for non-domestic consumers which would maximise buy-in from these key market players.

Two respondents noted that SMEs should have access to redress mechanisms, and this should not be limited to domestic and micro-business consumers. A common theme in the responses to all the consumer implications questions was that consumer detriment encompasses more than just pricing and extends to other areas such as quality of service. It was highlighted that these will also need to be addressed to achieve public acceptance of the policy proposals.

Two industry trade associations agreed with extending certain consumer protections. One argued that greater standardisation would increase the efficiency and speed of negotiations between consumers and heat networks and the other agreed in principle though asked for more detail on the specifics.

Our response to this question is outlined on page 67.

Question 47: Do you agree or disagree that the approach to pricing outlined above is proportionate for consumers who are required to connect within a zone? If you disagree, what alternative approach could be taken to support consumers required to connect within a zone?

Question 47	Response	Percentage of responses[2]
Agree	36	55%
Disagree	7	11%
Neither	11	17%
Comment only	12	18%
Blank	35	

Table 31

Question 47 received 66 responses in total.

Six respondents stated they agree in principle with the approach to pricing set out in the consultation, whereby pricing protections established under the market framework[10] would apply to all those who are required to connect, including large non-domestic consumers. However, some respondents emphasised that the price should be comparable to any low carbon counterfactual or alternative. Others stated the purpose should be to promote competition as well as protecting customers.

Seven stakeholders noted that flexibility needs to be maintained when designing and implementing a fair pricing system. These respondents stated that the pricing scheme must:

- allow for operators and suppliers to make a fair profit
- protect domestic and non-domestic consumers
- avoid unnecessary bureaucracy
- allow for the natural differences between zones and between different types of heat networks

Five respondents stated that heat networks may have legitimate reasons for charging more to suit their size, demand, network specifics and due to the regulatory requirements. There was some concern amongst these stakeholders that the definition of ‘fair pricing’ would not consider these factors.

Generally, respondents commented that before connection, consumers should feel their price is “fair” because this would result in favourable outcomes for the zone. Some suggested mandated transparency or price bands to help set expectations of minimum and maximum prices and others suggested that some form of price comparison mechanism may be beneficial. One respondent suggested that keeping the price of heat close to that of gas could be a proportionate approach to keeping the price fair on heat networks.

[10] See: https://www.gov.uk/government/consultations/heat-networks-building-a-market-framework

Two industry trade associations responded to this question. One disagreed with the pricing proposal outlined in the consultation stating that the approach should be based on sensible and appropriate counterfactuals so that consumers are always aware of the cost of delivering heat compared to alternatives. The other trade association broadly agreed with the pricing proposal set out in the consultation.

Our response to this question is outlined on page 67.

Question 48: Do you agree or disagree that the proposed market framework quality of service standards are sufficient for domestic and micro-business consumers within zones?

Question 48	Response	Percentage of responses[2]
Agree	35	63%
Disagree	6	11%
Neither	11	20%
Comment only	4	7%
Blank	45	

Table 32

Question 48 received 56 responses in total.

Stakeholders broadly agreed that the quality of service standards proposed in the market framework[11] were sufficient for consumers within zones. Six respondents emphasised that these standards should be updated over time to reflect changes in the market both inside and outside of zones and that consistency was a main concern.

Four respondents who disagreed stated that more was required to protect consumers in a heat network zone, citing the requirement to connect. These respondents were concerned on behalf of vulnerable consumers and some stated that engagement plans should be a requirement to help to keep consumers informed. Other respondents noted the importance of effective dispute resolution.

Three stakeholders suggested the standards should build on the pre-existing Heat Trust standards as these are already used by industry.

Our response to this question is outlined on page 67.

[11] The list of proposed Quality of Service standards listed in the 2020 Heat Network Market Framework can be found in the Annex.

Question 49: Do you agree or disagree that large non-domestic consumers may not require the above listed quality of service outcomes? If you disagree, which of the outcomes listed above do you believe should be extended to large non-domestic consumers within zones?

Question 49	Response	Percentage of responses[2]
Agree	17	28%
Disagree	21	35%
Neither	10	17%
Comment only	12	20%
Blank	41	

Table 33

Question 49 received a total of 60 responses.

Fourteen respondents commented that there may be advantages in extending some specific quality of service standards to large non-domestic consumers. These respondents generally stated that many of the listed standards were applicable to non-domestic consumers, and that there would be little to lose by extending them. Others stated that from a fairness perspective, the requirement to connect meant that certain service standards should be extended to large non-domestic consumers.

Respondents also noted that extending quality of service standards to large non-domestics may be good for business. Some stakeholders stated that, for non-domestic consumers, security of supply will be a significant requirement and standard terms would allow for uniformity, help negotiations with heat suppliers and may improve investment opportunities. It was noted that large non-domestic consumers may also be in a better position to negotiate with certain standardised provisions in place.

Two industry trade associations provided responses to this question. The first argued that consistent quality of service standards applied across the market could facilitate a smooth onboarding process for non-domestic and domestic consumers. The other stated that, although not all standards would be appropriate for non-domestic consumers, transparency and information standards may be useful to avoid negative reputational outcomes for the sector.

Our response to this question is outlined on page 67.

Question 50: Do you agree or disagree with the suggested priorities for transparency and information provision during each stage of zoning implementation?

Question 50	Response	Percentage of responses[2]
Agree	42	76%
Disagree	3	5%
Neither	6	11%
Comment only	4	7%
Blank	46	

Table 34

Question 50 received a total of 55 responses.

In the zoning consultation we proposed that the priorities for each stage of the zoning process could include:

1. During zone identification and designation: The provision of relevant information to consumers such as the need to decarbonise heat and the role that heat networks can play
2. During the delivery stage: Information such as connection timelines, pricing information, information on building works required, exemptions and appeals etc.
3. During operation and review stages: Transparent pricing information for all consumers required to connect within a zone

Twelve respondents stated that transparency was critical to the success of zoning. Some commented that information should be available at the zone designation stage. Others highlighted that pricing transparency should be available for consumers to help them understand the reason for differences in operating costs between heat networks. Many of these respondents stated that those directly impacted should have an opportunity to steer development of the heat network. For example, some stated that landlords should be obliged to inform or engage with their tenants, so they understand the benefits and drawbacks prior to connection.

Six respondents, including two industry trade associations, felt the proposed approach to transparency and information was broadly proportionate. However, some of these stakeholders noted that more detail would be needed before an assessment could be made.

Two respondents stated that standardisation between non-domestic and domestic consumers was important, and the same level of information should be provided to each group.

Our response to this question is outlined on page 67.

Question 51: Do you agree or disagree that large non-domestic consumers will not require the same pre-contractual information as domestic and micro-business consumers?

Question 51	Response	Percentage of responses[2]
Agree	21	38%
Disagree	25	45%
Neither	6	11%
Comment only	4	7%
Blank	45	

Table 41

Question 51 received a total of 56 responses.

As shown in Table 41, there was significant disagreement (45% of those providing a view) to the consultation proposal.

Most of those who disagreed with the proposal stated that mandatory pre-contractual information should be extended to large non-domestic consumers. Three supported this by stating that it would not be costly or challenging to do so. Others commented that it was wrong to assume that large non-domestic consumers would automatically be in a better negotiating position – heat networks are a new kind of technology and businesses may not be familiar with this kind of arrangement or contract.

Three stakeholders stated that there should be standardisation and uniformity as far as possible across service standards. Others stated that transparency would be key to the success of zoning. Three stakeholders speculated that pre-contractual templates may help to stimulate interest in heat networks for large non-domestic stakeholders as this would take elements of uncertainty out of the process. Two respondents considered that pre-contractual information should be tailored to the specific building type.

By contrast, some respondents agreed that pre-contractual information was not needed for large non-domestic consumers. Six stated that it was reasonable to assume non-domestic consumers would have processes in place to assess pre-contractual information themselves.

One industry trade association disagreed, stating that more standardisation by government would lead to easier negotiations between large non-domestic consumers and heat networks, leading to increased growth in the sector. Another trade association noted that many large non-domestic consumers are still not fully aware of the benefits of heat networks, so some extended standards may be of use.

Our response to this question is outlined on page 67.

Question 52: Do you agree or disagree that large non-domestic consumers may not require a specific consumer advocacy body, or a pre-determined arbitration route to have been identified, prior to zone designation?

Question 52	Response	Percentage of responses[2]
Agree	22	39%
Disagree	18	32%
Neither	11	19%
Comment only	6	11%
Blank	44	

Table 35

Question 52 received a total of 57 responses.

Eight respondents stated that large non-domestic consumers have the resources to act during disputes without the need for a specific dispute resolution procedure. Many of these respondents reasoned that these consumers would be well-placed to set this out ahead of time in their commercial contracts. However, some of these stakeholders commented that SMEs may benefit from arbitration of some kind.

Other stakeholders disagreed with the proposal set out in the consultation that specific arbitration routes should be reserved for consumers most likely to need it (i.e. domestic and micro-business consumers). Seven respondents considered that the requirement to connect would create a reduced negotiating position for all those in scope, precipitating the need for either a specified appeals process or strong standards. Six commented that an independent body should equally apply to all consumer types and that standardisation and uniformity will assist with market regulation and clarity.

Two industry trade associations responded to the question. One disagreed with the proposal, stating that the potential positive influence of an independent body could equally apply to large non-domestic consumers as it does to domestic and micro-business consumers. The other agreed with the proposal, commenting that large non-domestic consumers will have their own routes for arbitration.

Our response to this question is outlined on page 67.

Question 53: Do you agree or disagree with our proposed approach to technical standards within zones? If not, please explain why.

Question 53	Response	Percentage of responses[2]
Agree	42	67%
Disagree	4	6%
Neither	7	11%
Comment only	10	16%
Blank	38	

Table 36

Question 53 received a total of 63 responses.

The consultation proposed that the voluntary industry code of practice known as the CP1: Heat Networks: Code of Practice for the UK[12] will form the basis of technical standards for heat networks within zones.

Respondents broadly agree with the proposed approach, with seven respondents citing that the industry already widely recognizes CP1. Many respondents emphasised the critical importance of technical standards for the reputation of the market overall and the overall customer experience. Some stakeholders noted that coverage and enforcement must be consistent across all zones and all areas of the country.

Four stakeholders stated that CP1 may need improvements before implementation and two respondents stated that the timing of introduction is important for business planning.

There was concern expressed by two respondents that the standards would not go far enough, and that the area was very complex. They also highlighted uncertainty around who would cover the cost. Another theme amongst respondents was the existing knowledge gap within industry.

Those who disagreed with the proposals stated that CP1 may not be appropriate as it may be too restrictive and could suppress innovation.

[12] CP1: Heat networks: Code of Practice for the UK (2020)
https://www.cibse.org/knowledge/knowledge-items/detail?id=a0q3Y00000IMrmGQAT

Two industry trade associations responded to this question, and both agreed with the proposal for technical standards. However, one of the trade associations caveated their support, noting there is a lack of understanding among consultants and contractors acting for residential housing developers of what is in CP1 and this would need to be addressed by government.

Government response – Consumer implications

The consultation proposed extending Ofgem's price protection duties to cover large non-domestic consumers in zones where buildings are subject to the requirement to connect, but suggested that this group of consumers may not require the other consumer protections proposed as part of sector regulation. The justification for this was that large non-domestic consumers are generally in a stronger negotiating position than domestic consumers and can ensure they have adequate protections through contractual negotiation. Many stakeholders agreed that the requirement to connect within a zone changes this conclusion and that pricing protections should be extended to all consumers. We agreed with this, and therefore intend to extend pricing protections to all consumers within zones who are required to connect, including non-domestic consumers.

We also acknowledge that a consistent theme from stakeholders was that the risk of consumer detriment extends wider than pricing to other areas, such as quality of service standards. There was widespread support for extending (or considering extending) other consumer protections to large non-domestic consumers, and we note that some of our assumptions regarding these parties' resources or negotiating power were called into question. Respondents also flagged how a more holistic approach to consumer protection could improve consumer awareness and support increased growth in the sector.

We also recognise that some respondents were more cautious, for example noting that commercial contracts are complex, and that they would like to see more detail before being able to express an informed opinion on whether and how different protections should apply to different consumer types.

We are grateful for stakeholder comments in these areas, and we will ensure we take these views into consideration as we continue to develop the policy framework.

At this stage we propose that primary legislation will provide Ofgem with a broad power to introduce a consumer protection framework, and Ofgem may take a different regulatory approach to consumers within zones to allow for the continued refinement of the policy going forward. We will consult further on the details of consumer protection in due course. Our approach means that although the consumer protections will apply across all heat networks, Ofgem may take a different approach and apply additional protections to certain consumers in zones (for example, large non-domestic consumers who are in scope of the requirement to connect).

In addition to Ofgem's role in consumer protection we also expect that the Zoning Coordinator will offer an added level of protection. This could be achieved through their duties in appointing a heat network developer and ability to negotiate pricing, identifying what buildings are required to connect and their role undertaking enforcement duties within zones. In addition to the examples provided above, the Zoning coordinator would also be well placed to mediate disputes within zones where they are a third party in the development of the heat network.

For technical standards, we expect that the mandatory minimum standards as part of sector regulation will be in place when zoning is implemented, but if needed, we propose to continue with the consultation approach of using CP1 as a basis of technical standards for heat networks within zones. Most respondents were broadly supportive of our proposals and as such we intend to continue with the approach. We are grateful for stakeholder views and will consult further on our approach to technical standards in due course as we develop our policy.

As mentioned in the text above, the application of consumer protection will be subject to further consultation in due course.

Enforcement, monitoring and reporting

Enforcement

Question 54: Do you agree or disagree with our proposal for the Zoning Coordinator to carry out local enforcement functions? A) agree, B) neither agree nor disagree, or C) disagree. Please explain your reasoning.

Question 54	Response	Percentage of responses[2]
Agree	37	66%
Disagree	5	9%
Neither	8	14%
Comment only	6	11%
Blank	45	

Table 37

Question 54 received a total of 56 responses.

Stakeholders broadly welcomed the possibility that the Zoning Coordinator carries out local enforcement functions. However, a range of views were expressed regarding the specifics of its powers.

In particular, 24 respondents expressed concerns that local authorities do not have sufficient knowledge, training, and resources to carry out the function. The recommendation was therefore that the government should make relevant provisions for the plan to be successful.

Another group of three respondents argued that the role would be most suited for the central authority or that there should be a coordinated approach between the central authority and the Zoning Coordinator, especially in matters of appeals.

Three more respondents agreed that there should be standard measures for specifications, requirements, and thresholds for any civil penalties to provide clarity on what is needed. One further respondent suggested that the central authority should set those standards.

Five respondents pointed out that there might be a conflict of interest if local authorities were to undertake an enforcement role. Three respondents stated that more work would be needed to assess the feasibility of the proposal.

Our response to this question is outlined on page 73.

Question 55: Do you consider the payment of a fine to be an appropriate route to come into compliance instead of providing A) required information or B) connecting a building to a heat network where required?

Question 55	**Response**		**Percentage of responses**[22]	
Part	**A**	**B**	**A**	**B**
Agree	21	19	40%	37%
Disagree	12	15	23%	29%
Neither	10	9	19%	17%
Comment only		9		17%
Blank		48		

Table 38

Question 55 received a total of 53 responses.

Most stakeholders welcomed the introduction of fines, though only six respondents explicitly agreed that fines would help increase compliance.

Fifteen respondents expressed concerns that this approach would provide an opportunity for parties to avoid providing information or connecting to heat networks. Similarly, 11 further respondents stated that, although they agreed with the introduction of fines in principle, they would object to fines replacing the obligations to provide information or connect to a heat network.

In terms of mitigation, one respondent highlighted the need for a means of escalation in case the fine does not meet the intended policy outcome, and three more respondents recommended that fines could take the form of a recurring standing charge.

In terms of enforcement authority, one respondent agreed that the Zoning Coordinator should carry out enforcement, whereas three other respondents considered that only the central authority should impose sanctions. Two other respondents suggested that the government uses funds raised from fines to put them to 'good use', such as reduction of CO_2 emissions.

Finally, two respondents argued that fines will not be sufficient as a deterrent and a further two respondents stated that providing information is ultimately more important than a fine.

Our response to this question is outlined on page 73.

Question 56: Do you consider civil (non-criminal) penalties to be proportionate for non-compliance with requirement to provide information and requirement to connect? If not, please explain your answer.

Question 56	Response	Percentage of responses[22]
Agree	31	60%
Disagree	3	6%
Neither	12	23%
Comment only	6	12%
Blank	49	

Table 39

Question 56 received a total of 52 responses.

Whilst three stakeholders considered criminal offences to be more appropriate, the majority of respondents agreed that civil penalties were fair and proportionate sanctions for non-compliance. Twenty respondents who agreed with the proposal, including one industry trade association, did not provide further comments.

Three respondents said that penalties should be aligned with similar regulations and precedents and, similarly, two further respondents said that the government should match sanctions for non-compliance with zoning obligations with those of other market regulations.

In terms of fines, one respondent suggested that the revenue is used to further reduce carbon emissions and one respondent proposed that buildings are taxed on carbon performance in comparison to the local heat network.

Two respondents who disagreed with the proposal, including one industry trade association, did so on the basis that it is inconsistent with the Heat Metering and Billing Regulations where non-compliance is a criminal offence.

Several respondents commented on enforcement: two respondents emphasised the need for robust enforcement powers in place and one respondent underlined the need for clear information, early warnings and guidelines given from the central authority to the Zoning Coordinator and from the Zoning Coordinator to the buildings' owner, respectively. Finally, one respondent stated that it should be for the central authority to provide a view on civil/criminal penalties, not the local authorities.

Our response to this question is outlined on page 73.

Monitoring and reporting

Question 57: Do you agree or disagree that a monitoring and reporting framework for heat network zoning is necessary?

Question 57	Response	Percentage of responses[22]
Agree	51	86%
Disagree	1	2%
Neither	4	7%
Comment only	3	5%
Blank	42	

Table 40

Question 57 received a total of 59 responses.

Stakeholders largely agreed with the proposals, and they offered a diverse range of views with regards to implementation.

Specifically, six respondents said that the framework should be standardised, straightforward, and clear, and a further six respondents suggested that a more detailed approach is necessary.

Most responses mentioned costs relating to the monitoring and reporting framework. Four respondents underlined the need to ensure consumers are not burdened with excessive compliance costs, two respondents asked for more funding to be made available to local authorities, and another two respondents asked for funding for the Zoning Coordinator to be available long-term to ensure that monitoring and reporting is an ongoing requirement. One respondent stated that the flow of information between the Zoning Coordinator, the heat network operator, the regulator, and the central authority is essential. Another two respondents considered the quality assurance framework should be embedded using ISO standards.

Our response to this question is outlined on page 73.

Question 58: Do you consider that specific information should be provided to A) the central authority, B) the heat network regulator, C) the Zoning Coordinator? Please specify what this information should be and who you consider should be responsible for providing this information.

Question 58 received a total of 35 responses.

Seven stakeholders stated that requirements for information sharing should not be burdensome irrespective of where the information was going (central authority, regulator, or Zoning Coordinator). Thirteen commented that the information should flow through from the Zoning Coordinator to the regulator and then on to the central authority, or via a similarly logical and easy to understand process. Four respondents

requested more detail before they could make an assessment. Three other respondents stated that there would need to be an established process for the central authority to report to the wider sector if they collected any information.

There were certain themes within responses regarding what information the central authority, regulator and Zoning Coordinator should collect, summarised below.

Central authority

Most respondents considered that information passed to the central authority should be useful for the coordination and/or evaluation of zones at a national level. For example, some respondents commented that annual updates on key zoning metrics such as the carbon factor in all zones, the total amount of heat supplied in zones, the amount of low carbon heat generation, the total number of customers connected to heat networks within zones, the total number of breaches of requirements with zones, annual performance data within zones, tariff data, annual accounts, and future decarbonisation plans. Some respondents also stated that registration of some form detailing the size of annual carbon saving against a counterfactual would be beneficial.

Heat network regulator

Some respondents commented that the regulator should have access to annual updates on key zoning metrics, such as tariffs and charges, complaint data and annual agreed metrics of performance. For the metrics of performance, suggestions included carbon factors, billing provision and health and safety incidents. Another respondent noted that the regulator should collect data that would enable arbitration in case of later disputes.

Zoning Coordinator

For the Zoning Coordinator, stakeholders suggested that annual agreed metrics of performances on technical standards (CP1 stage 6 and 7 as a minimum) and other zone-specific information such as progress against plans, number of properties connected per zone against targets should be submitted. One respondent suggested that a detailed map and commissioning details should be submitted to Zoning Coordinators in order that they can ensure compatibility with other schemes and manage future connections for either heat off-takers or heat suppliers.

Government response – Enforcement, monitoring and reporting

We propose implementing the consultation proposal, whereby the Zoning Coordinator would be responsible for enforcement. This does not refer to the enforcement that will be carried out by Ofgem as part of the market framework, but the Zoning Coordinator will have the power to enforce:

a) The requirement to provide information in zones,

b) The connection of buildings where legally required in zones,

c) The requirement for heat sources to connect in zones.

As discussed in the heat network deployment strategy government response section above, we propose introducing a provision that will allow Zoning Coordinators to veto developments in their zone where necessary to prevent new heat networks from disrupting the overall development strategy in their zone. We consider the Zoning Coordinator therefore requires a power to enforce this provision.

We confirm that the primary legislation will provide the Zoning Coordinator with the power to impose civil (non-criminal) sanctions in cases of non-compliance including statutory notice and monetary penalties where appropriate and will have the power to vary the penalty depending on the characteristics of the breach. Having considered consultation responses on this issue, we confirm that payment of a fine will not be an alternative route for entities to comply with the zoning policy.

We recognise stakeholder concerns regarding potential resource impacts for local government and the potential issue of conflict of interest in instances where local government is both the heat network operator and the Zoning Coordinator. We will engage further on our policy proposals as they develop and, in due course, consult further on the above enforcement proposals. We will also present an outline for how much time entities subject to the requirements above have before they must comply.

There will be an appeals process to be set out in secondary legislation, for those who receive a statutory notice and/or monetary penalty. The time periods that apply, the procedural process and the options available to the body hearing the appeal will be subject to further policy development and consultation.

To allow for an enforcement regime (and the general flow of information and data within zones) a process is required for effective monitoring and reporting between different entities involved in the designation and operation of a heat network zone. The broader market framework will introduce heat network reporting requirements. We propose that heat networks developed in zones will be required to comply with a zone-specific monitoring and reporting framework. Many stakeholders who responded to the relevant question in the consultation emphasised that any reporting requirements would need to be standardised, straightforward, and clear, while most also commented that cost and burden to business must be considered when developing the reporting and monitoring framework. We will take these comments onboard ahead of further consultation to ensure our monitoring and reporting requirements are proportionate.

At present we have an overarching framework for the kind of information that may need to be monitored during the refinement stages. For example:

- The Zoning Coordinator will monitor the local data provided by entities subject to the “requirement to provide information” and in some instances may report this to the central authority.

- Zoning Coordinator monitors key data from local stakeholders that may impact on the zone development. This could include (but is not limited to); lifetime of heat source assets, local grid infrastructure, planned fabric works etc.

During operation, the Zoning Coordinator may need to monitor and/or report to the central authority:

- progress against contractual terms (where the Zoning Coordinator has procured a heat network developer or operator)
- the number of exemption applications made by entities
- the enforcement activity undertaken within a heat network zone
- progress against the low carbon requirement
- data to facilitate periodic reviews of heat network zones

We will present more detailed monitoring and reporting proposals in further consultation in due course.

Zone Review

Rationale for zone review provisions

Question 59: To what extent do you agree or disagree that a zone review may be necessary at some point? A) agree, B) neither agree nor disagree, C) disagree. Please explain your answer.

Question 59	Response	Percentage of responses[2]
Agree	48	76%
Disagree	4	6%
Neither	3	5%
Comment only	8	13%
Blank	38	

Table 41

Question 59 received a total of 63 responses.

Stakeholders welcomed the proposal for a zone review process and expressed a range of views in terms of timing and trigger points. Specifically, 24 respondents stated that reviews should be triggered when substantial changes in the industry landscape have taken place and that the review processes should accommodate and reflect those changes.

Nine respondents stated that review should not reduce the confidence of investors in the initial business case and a further three respondents recommended that reasons for a zone review and the possible outcomes be clearly articulated in advance.

Ten respondents addressed timing: five stakeholders emphasised that reviews should be aligned with the grace period given to buildings to connect, and two respondents said there should be a minimum time before a review could be triggered. One respondent suggested this should be connected to a 5-year local plan cycle, while two respondents said reviews should happen more frequently.

Two respondents argued that, once zones have been designated and heat networks developed within them, it would be too late for reviews to take place.

Our response to this question is outlined on page 77.

Question 60: In addition to material triggers being set out in legislation, should others be able to call for the review of a zone? Indicate all that you agree with: local Zoning Coordinator/authority, local stakeholders, heat network developer/operator in the zone, other (please specify).

Question 60 received 56 responses in total. Stakeholders offered a variety of views in terms of the entities allowed to call for a review.

Specifically, 28 responses favoured the Zoning Coordinator being able to trigger a review, 12 responses expressed support for the heat network developer or operator, and 21 responses mentioned other local stakeholders. Furthermore, three respondents stated that the central authority should be able to trigger reviews, two stakeholders wanted consumers to be allowed to do it, two stakeholders called for the heat network regulator, and 12 suggested various unspecified stakeholders to be involved.

Finally, seven stakeholders raised the need for a clear process to be in place, with clearly defined criteria for reviews. Similarly, another five respondents asked for reviews to only be triggered under specific circumstances and with sufficient pre-determined evidence.

Government response – Zone review

We are grateful to stakeholders for the range of views and suggestions they put forward regarding the zone review provisions. We remain of the view that a zone review process is necessary and will help ensure zones can evolve appropriately in light of any changes to assumptions or conditions upon which a zone was originally based. This could include changes to local conditions, in the wider energy market and/or the regulatory framework. However, we acknowledge the risk that the possibility of zones being reviewed could undermine confidence and limit build-out.

We will consider this issue as well as other points raised by respondents in further developing the policy. At this stage we confirm that the primary legislation will include provision for zone reviews, with further detail to be included in secondary legislation and subject to further consideration.

Next Steps

Responses to this consultation and data collected from the zoning pilots and other BEIS studies will help us develop the forthcoming primary legislation needed to deliver heat network zoning. We will publish further consultations to refine the proposals above and explore how they will work in practice. This will inform the secondary legislation that will be used to implement the policy.

We will continue our ongoing engagement with partners across government and with stakeholders as we advance our policy development.

We continue to encourage parties to follow existing good practice, such as that set out by the Heat Trust and the ADE-CIBSE Code of Practice.

Annex A

List of central authority functions

Within our zoning consultation we proposed a list of potential functions for the central authority. Although the list is not exhaustive or guaranteed, this provides an indication of the likely functions:

- Setting, at a national level, categories of buildings required to connect in zones
- Specifying whether heat sources in or near a zone must connect to the heat network in a zone, and in what circumstance
- Introducing a low carbon standard for heat networks in heat network zones
- Determining which parties are required to provide information to facilitate the Zoning Methodology
- Establishing the procedure for how the Zoning Coordinator is established, governed, and funded
- Establishing an appeal process for decisions taken in the zone designation and operation stages
- Establishing the criteria for reviewing the Zoning Methodology

Possible Zoning Coordinator functions

Below are the proposed functions listed in the consultation for the Zoning Coordinator. As with functions for the central authority, a final decision on functions will be subject to further consultation.

- Engagement in identification of zones and refinement of zone boundaries (the zoning methodology)
- Obtaining data from local stakeholders and other parties that is required for the zoning methodology
- Engagement and consultation with local stakeholders and other relevant parties ahead of designation of the heat network zone
- Formal designation and registration of the heat network zone
- Determining, with advice from the central authority as required, the zone delivery model
- Facilitating the delivery of the heat network zone, or zones, with support from the central authority
- Enforcement of local zoning requirements
- Monitoring heat network development within the heat network zone
- Monitoring and reporting on the performance of a heat network zone
- Carrying out reviews of heat network zones if and when appropriate; and

- Generally supporting the development of heat networks within the heat network zone

Proposed Market Framework Quality of Service standards

The below is taken from the 2020 Heat Network Market Framework consultation. This sets out the “outcomes approach” to quality of service proposed by the Market Framework.

Desired Outcome	Example Measure
[domestic and micro-business] Consumers are clear about the terms and conditions of their heating service (including many of the issues identified below)	Heat supply agreements
[domestic and micro-business] Consumers understand when there will be a planned interruption to their supply, and required periods of notice their supplier needs to give them	Outages and Notice periods
[domestic and micro-business] Consumers understand who to contact to report faults and emergencies and what response times they can expect	Customer helpline
[domestic and micro-business] Consumers understand how to make a complaint and what response times they can expect	Complaints handling policy and procedure
[domestic and micro-business] Consumers understand how to access independent arbitration services such as the Energy Ombudsman if they are unhappy about their service or how a complaint has been handled	Access to independent redress
[domestic and micro-business] Consumers understand who is eligible for guaranteed service payments and in what circumstances, the level of any compensation offered and when it will be paid	Compensation arrangements

[domestic and micro-business] Consumers understand how heating supplies will be assured in the event of a supply or network failure	Step-in arrangements
Vulnerable consumers are identified and clear about available support, including protection they will be offered in the event of a supply failure	Vulnerable/priority consumers register

This consultation is available from: www.gov.uk/government/consultations/proposals-for-heat-network-zoning

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