

## **Energy UK Response to DESNZ Heat Network Zoning Consultation**

**26.02.2024**

### **Executive Summary**

Energy UK is the trade association for the energy industry with over 100 members - from established FTSE 100 companies right through to new, growing suppliers, generators and service providers across energy, transport, heat and technology.

Our members deliver nearly 80% of the UK's power generation and over 95% of the energy supply for 28 million UK homes as well as businesses.

The sector invests £13bn annually and delivers nearly £30bn in gross value - on top of the nearly £100bn in economic activity through its supply chain and interaction with other sectors. The energy industry is key to delivering growth and plans to invest £100bn over the course of this decade in new energy sources.

The energy sector supports 700,000 jobs in every corner of the country. Energy UK plays a key role in ensuring we attract and retain a diverse workforce. In addition to our Young Energy Professionals Forum, which has over 2,000 members representing over 350 organisations, we are a founding member of TIDE, an industry-wide taskforce to tackle Inclusion and Diversity across energy.

### **Buildings In Scope of the Requirement To Connect**

- Technology neutrality should be an inalienable part of heat network policy.
- In general, buildings should be required to connect. However, this requirement should be managed under the exemption system.
- New buildings within a zone should be required to be "heat network ready" if they cannot immediately connect on completion of construction.
- Energy UK does not object to the proposed criteria for "heat network ready" buildings, but asks that more detailed information on the criteria be set out as the concept is developed further, including where criteria may need to differ for different forms of heat network to ensure a level playing field for all technology types.

### **Exemptions**

- The agreement phase is the most logical time for exemption applications to be submitted.
- However, the Central Authority should have completed sufficient due diligence in the zoning stage and therefore should not create zones where there are likely to be large numbers of exemptions.
- Exemptions should be temporary or conditional and the exception rather than the norm. Industry would also appreciate further detail on the conditionality of such exemptions.
- Conditional exemptions should last no longer than five years before renewal is required.
- Exemptions on the basis of lower-cost, low-carbon heating options should go beyond a counterfactual of ASHP vs district heating to include other heating technologies.

## **Zone Identification & Refinement**

- The zone refinement stage should allow for more general refinements.
- In principle, Energy UK does not object to the aggregation of smaller indicative heat network zones in instances where zones are running uneconomically. However, this should be subject to developer consent in the event aggregation occurs post-awarding of a zone for development. Energy UK would appreciate further clarity from DESNZ as to in which circumstances this might occur.
- The National Zoning Model should ultimately include assumptions about all forms of heat network to provide accurate analysis of the lowest-cost solution for given areas.

## **Principles For Commercial Models Governing Heat Network Zones**

- Energy UK broadly agrees with the proposed principles for evaluating commercial delivery models.
- We encourage DESNZ to be mindful of considering economies of scale and that larger heat networks can generally deliver more cost-effective heat.
- Heat network policy should take into consideration factors including (but not limited to) technology type, technical feasibility, land access, geographical limits and demand in a given area.
- We encourage DESNZ to ensure a robust and open competition process for zone development, enabling all low carbon heating and heat network technologies to participate and delivering the most appropriate and cost-effective solutions.

If you have any questions about this response or wish to engage with Energy UK and its members, we would welcome further engagement.

Kind regards,

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## **Consultation Questions**

Summary of proposed roles and responsibilities of the Heat Network Zoning Authority:

**Q1. Do you agree with the roles and responsibilities set out for the Central Authority? If not, please set out a) which ones you disagree with and why, and/or b) additional duties you expect them to perform and why.**

- Energy UK welcomes the intention to allocate the creation of market signals to the Central Authority.
- Industry has generally been supportive of anticipatory grid development for large-scale renewables. This support has increased as the ambition for Net Zero becomes clearer and as network connections see unprecedented demand.
- With this in mind, Energy UK welcomes the proposal for the Central Authority to be responsible for identifying potential heat network zones for development by industry, and asks that more clarity be set out regarding how this will integrate with the Spatial Strategic Energy Plan and wider changes to system planning and operation.
- The Central Authority should fully consult with industry in advance of formally designating and reviewing zones to ensure that their proposals are practical and economically viable.
- More information on the precise zoning methodology and routes to market are needed from DESNZ before industry can commit to making investments.
- Equally, industry requests that DESNZ releases consultations on other aspects of heat network policy to provide further clarity on potential investment propositions.

Governance of the Central Authority and position within government:

**Q2. Do you agree with the housing of the Central Authority within the Department for Energy Security and Net Zero, for the initial period? If not, please set out why not, what alternative you would propose, and what benefits this alternative could bring.**

- Energy UK does not object to the Central Authority being housed within the Department for Energy Security and Net Zero.
- However, industry's view of where the Central Authority should be housed is strongly influenced by how much control it has over heat network zones.
- The remit of the Central Authority is currently unclear. Industry would appreciate further clarification on this from DESNZ.
- It is important, however, that the Central Authority holds a sufficient remit to enable the development of a commercially viable market that can deliver low-carbon heating to consumers and businesses.
- Equally, it is important that decisions are made in a transparent manner and in consultation with industry.
- In the event that it is determined that the configuration of the Central Authority being housed within DESNZ does not deliver the desired results, industry would be open to alternative governance structures in the longer term.

Zone Coordinators – summary of proposed roles and responsibilities:

**Q3. Do you agree with the roles and responsibilities set out for the Zone Coordinator? If not, please set out a) which ones you disagree with and why, and/or b) any additional duties you expect them to perform and why?**

- Energy UK welcomes the proposals as regards “*Identifying, designating and reviewing zones*” – particularly the process of carrying out a formal consultation before a zone is designated.
- As regards “Zone Delivery”, industry would appreciate further detail on the route to market that will be used in terms of “*running any competition or process for appointing a heat network zone developer or developers.*”
- More specifically, Energy UK would like to know if the route to market to be used in a given zone will be flagged in advance of zone designation in the interest of creating a clear picture of the opportunity available for heat network developers.
- Equally, industry would also appreciate if DESNZ could confirm how long developers will have exclusivity rights in zones.
- Energy UK does not object to any of the proposed responsibilities under “Zone Operation.”
- However, industry needs more clarity on instances in which “*the central authority may choose to carry out some Zone Coordinator functions in some or all zones if circumstances require it.*”
- Importantly, zone coordinators will have a major role in shaping the development of zones and the offer to consumers in that zone. It is therefore critical that these bodies have access to accurate information about the forms of heat network (4<sup>th</sup> gen, 5<sup>th</sup> gen, shared ground loops) and heating technologies that could be utilised, to ensure these are accounted for in developing zone prospectuses and competitions.

Designation of a Zone Coordinator:

**Q4. Do you agree with the suggested approach for designating Zone Coordinators? If not, please set out which aspects you disagree with and how to address them.**

- Energy UK welcomes DESNZ’s recognition that demand for and capacity to supply a heat network may stretch across several local authority areas and that different components of local Government in each area may be best suited to zone identification, refinement, and designation etc.
- It therefore follows that the Central Authority should lead the coordination process.
- With that being said, we do have concerns about some Local Authorities who may not have funds or resources available for coordination.
- In instances where this occurs, additional resources should be made available by central Government.

**Q5. Do you agree with the proposed list of Fitness to Operation Assessment criteria set out in Table 1? If not, please explain why.**

- Energy UK does not object to the proposed criteria but would welcome more granularity in the final release.

Zone Coordinator Structure:

**Q6. Do you agree with the Zone Coordinator governance requirements set out above? If not, please set out a) which ones you disagree with and why, and/or b) which additional requirements you consider are necessary.**

- Energy UK supports the proposed governance requirements for Zone Coordinators.
- DESNZ should clarify at what point local authorities must choose between a Principal or Optional governance structure.
- Given that heat network developers are likely to choose their project governance structure either before submitting a bid for or after being awarded a heat network contract, it would seem counterintuitive for local authorities to choose their governance structure in advance of a contract being awarded at the zoning stage.

Zone Coordinator Funding:

**Q7. Do you agree that, longer-term, heat network developers should pay a greater proportion of the costs of Zone Coordinators related to zones they are formally engaged with? What challenges and opportunities do you see with this approach?**

- Energy UK recognises and supports the Government's efforts to reduce energy bills.
- To that end, Energy UK is of the view that heat network developers should not pay a greater proportion of the costs of Zone Coordinators related to zones they are formally engaged in until the market matures significantly.
- Instead, funding should be made available from Government and the costs spread across the wider energy system.
- This will encourage greater investment in the nascent heat network market in England.
- It must be recognised in the approach that financial models for large-scale energy projects such as heat networks are complex with regard to planning permission, connections, routes to market and financial modelling.
- As heat network projects are likely to have a set contract duration, the cost recovery model must be developed and kept consistent for the duration of a project's route to market.
- Equally, industry would also appreciate if DESNZ could confirm how long developers will have exclusivity rights in zones.
- Sudden changes to policy and cost recovery models by the Central Authority are likely to damage investor confidence and should be avoided, with clear guidance and lead times established.

Buildings in scope of the requirement to connect:

**Q8. Please suggest the features a building must have to be considered "heat network ready", meaning the characteristics required to enable a future connection to a district heat network.**

- Energy UK does not object to the proposed criteria for "heat network ready" buildings, but we ask that more detailed information on the criteria be set out as the concept is developed further.

**Q9. Do you agree that new buildings within a zone should be required to be “heat network ready” if they cannot immediately on completion of construction? If not, please provide further detail, including any factors related to cost-effectiveness.**

- Energy UK agrees that new buildings within a zone should be required to be “heat network ready” if they cannot immediately connect on completion of construction.
- The work required to ensure that new buildings are “heat network ready” will vary between buildings and between different types of heat network.
- It therefore follows that the connection process should occur in consultation with housing developers.

**Q10. Do you agree that all existing buildings with communal heating systems should be within the scope of the requirement to connect?**

- Energy UK agrees that all existing buildings with communal heating systems should be within the scope of the requirement to connect.
- In general, buildings should be required to connect. However, this requirement should be managed under the exemption system.
- There may be a case for developing a streamlined exemption process for buildings with low-carbon communal systems in place, in cases where there would be no environmental benefit from connecting to the new network. Consumers that have invested in these systems in order to reduce their carbon footprint and create a more cost-effective approach to heating should not be penalised for that investment.
- A simplified approach to exemptions where existing communal systems are in use may deliver a better customer experience, for example if the exemption is seen as applied until a set date when the existing system is to be replaced, removing the need for additional exemption applications in future.

**Q11. What impacts, if any, may this have on building owners, tenants, residents and other communally heated building users?**

- DESNZ is correct to identify that various stakeholders in the building sector may have different experiences with the installation of heat networks.
- Within this frame, we would anticipate the following outcomes:
  - Building Owners may incur upfront costs for connecting to the heat network. We would encourage DESNZ to explore the possibility of green finance, grant schemes and/or tax relief to address these costs and consolidate societal buy-in of heat networks.
  - Tenants may experience some disruption to their living or trading conditions which must be minimised wherever possible, but overall, this disruption will be mitigated by the long-term energy cost reductions they will benefit from as a result.
- In response to these challenges, Government funding should be made available to cover connection cost shortfalls.

**Q12. Please describe any implications for local authorities from the requirement to connect existing publicly owned, communally heated buildings to district heat networks.**

- Local Authorities may incur some costs to facilitate the connection of existing publicly owned, communally heated buildings to district heat networks.
- However, this is likely to reduce energy bills in publicly owned buildings as larger-scale heat networks are likely to be more economical than other forms of heat.

- Equally, this will simplify the process of devising Local Area Energy Plans (LAEPs) as heat networks will facilitate the provision of low-carbon heat to publicly owned buildings.
- In response to these challenges, Government funding should be made available to cover connection cost shortfalls.

**Q13. Which types of multi-unit residential buildings, if any, should be “heat network ready” following significant refurbishment? Please describe any impacts of this on owners or other users of these buildings and any appropriate mitigations.**

- Energy UK supports the general principle of multi-unit residential buildings becoming “heat network ready” following significant refurbishments. To that end, all multi-unit residential buildings should be required to be “heat network ready” following refurbishment.
- However, we are conscious that many multi-unit residential buildings across England are in poor condition and in need of substantial refurbishment.
- To that end, we would suggest that property owners should be able to apply for exemptions against a cost-benefit analysis to the end user as to why their building cannot become “heat network ready” at the time of refurbishment and commit to the completion of such modifications within an agreed timeline.
- Property owners may further benefit from additional advice and support to simplify the technical process of connection.

**Q14. Please suggest how to assess the cost-effectiveness of making buildings “heat network ready” during significant refurbishment, including which costs should be considered.**

- The cost-effectiveness of making buildings “heat network ready” during significant refurbishment should be assessed based on if the required works can be deemed ‘reasonable’ in the first instance.
- In the second instance, the following metrics should be considered:
  - Lifetime cost
  - Payback
  - Cost savings to customers
  - Low carbon counterfactual

**Q15. Please suggest a suitable definition of “significant refurbishment”. If possible, the definition should be unambiguous, enforceable and definitive.**

- No response.

**Q16. Among the metrics listed in Table 2, which, if any do you think should determine whether a non-communally heated, non-domestic building is within the scope of a requirement to connect? Please provide alternative metrics if you disagree with those listed.**

- Energy UK endorses the proposed metrics for determining the requirement to connect.
- However, we would like to comment upon the descriptors used for two of the variables:
  - Reported annual average heat demand (MWh per year): Assuming heat usage is metered, there should be no issue with independently verifying reported usage.

- Total installed heat capacity (kW): Installed capacity is a matter of compliance with planning regulations, but it should also be possible to verify this independently via metered usage.
- In terms of additional metrics, heat demand/temperature requirements in a specific zone (e.g. hospitals and other unique heating needs) should also be considered.

**Q17. For any additional metrics you have suggested, please describe how they are or could be: (i) independently verifiable; (ii) made easy/simple to understand; (iii) effective in selecting relevant buildings.**

- No response.

**Q18. For each of the metrics you have proposed in the previous questions, please describe a suitable threshold.**

- No response.

**Q19. Do you agree with the proposed mechanism for activating the requirement to connect? If not, please provide alternative suggestions.**

- Energy UK does not object to this practice, but the requirement to connect should vary based on the technology in question.
- It has been brought to our attention that DESNZ aims to introduce certain technical requirements for the competitive process for zone award that would limit the range of technologies eligible to enter this process.
- Importantly, there will likely be bids from developers (single or joint venture) that would include a mix of different technologies. Ruling such bids out from the process would be premature and short-sighted.
- We stress that technology neutrality should be an inalienable part of heat network policy.
- The competitive process should set out key considerations/factors for ZCs to account for in the process but allow for the competitive process/submission of bid development plans to be part of the process for assessing the most appropriate technologies and approach for an area.

**Q20. What, if any, unintended consequences for building developers, owners, and residents, may result from requiring existing buildings to connect at a time determined by heat network developers? Describe any mitigations.**

- It is important to recognise that buildings and different stakeholder categories have different sets of circumstances which must be accounted for within the final policy on heat network zoning.
- Energy UK cannot foresee any unintended consequences for building developers considering that developers are unlikely to have a stake in existing buildings post-completion and that heat networks will likely be added to the developer's financial model in terms of the cost of construction.
- Owners may be liable for the cost of connecting to a local heat network.
- Appropriate mitigations in this space include:
  - Creating a tax incentive to negate connection costs.
  - Grant funding for voluntary connections in a policy that is of a similar value to the Boiler Upgrade Scheme.



**Q21. What types of incentives could encourage connections to heat networks? For each suggestion, describe how the incentive will encourage connection, for instance by specifying which barrier to connecting.**

- Incentivisation for energy use is complex, particularly as regards issues such as heat network zoning which are subject to considerable regional variations.
- As mentioned above, tax incentives and grant funding could be offered to building owners to encourage them to engage proactively with the connection process.
- However, Energy UK takes the view that the best possible incentive for all stakeholders is reduced heating costs.
- With this in mind, the route to market structure put in place by the heat network developer should prioritise enabling heat network developers to offer economically viable projects that can supply low carbon or decarbonised heat to customers, preferably at a lower cost than gas and at the lowest possible cost beyond that.
- The incentive structure should facilitate connection to the heat network as the lowest cost solution, but if connections cannot be procured voluntarily, a backstop should be put in place to guarantee demand and thus enable a given heat network project to be commercially viable.
- To mitigate this, grant funding of a similar value to the Boiler Upgrade Scheme should be made available to cover the cost of connections.
- Energy UK would also like to clarify what the consequences are in the event a heat network developer is unable to connect to residents' properties. For example, does DESNZ intend to impose penalties on heat network developers in the event this occurs?

**Q22. Do you agree with the following timings for connecting existing buildings? If not, please provide alternatives.**

**a. 1 year for the connection window**

**b. 6 months for the agreement period**

**c. 2 months for the buffer period**

- Energy UK is broadly supportive of the proposed timelines and minimum requirements.
- In practice, we encourage DESNZ to allow Zone Coordinators some latitude on the exact timelines to take account of local circumstances.
- In light of Energy UK member experience with the development of other large energy infrastructure projects, we take the view that 2 months for a buffer period is too short a time to consider appeals and/or exemptions. While industry is supportive of expedited timeframes, societal buy-in must be considered.
- To that end, we would propose that the buffer period be increased to 6 months to allow for all outstanding issues to be properly considered.
- Equally, we would also appreciate clarification on the point in the project development process at which each of these phases are triggered.
- Industry would welcome a more prescriptive set of requirements as regards the one-year connection window.

**Q23. Please provide any administrative burdens or other impacts on any entity which could be caused by the use of agreement and buffer periods, and describe any mitigations.**

- Community buy-in of heat network zoning is vital. To that end, we suggest that the buffer period be extended to 6 months.
- In practice, we encourage DESNZ to allow Zone Coordinators some latitude on the exact timelines to take account of local circumstances.

**Q24. Please indicate when you believe the following stages in the connection process should begin and end for new buildings. Please be specific by, for example, naming the stage in the development process, such as Gateway 1 or Gateway 2.**

**a. The agreement period.**

**b. The buffer period.**

- It is welcome that DESNZ acknowledges that the requirement to connect *“must work with the planning process and allow for more flexibility in connection timing so as not to limit the supply of new housing.”*
- To allow sufficient flexibility in developing new buildings, we suggest that the agreement and buffer periods should be the same as with existing buildings.
- More specifically:
  - 1 year for the connection window.
  - 6 months for the agreement period.
  - 2 months for the buffer period.

**Q25. Do you foresee the process for connecting new buildings introducing any burden or delays on the building development process? Please suggest any mitigations.**

- It is possible that the connection process for new buildings to heat networks could introduce a burden or delays in the building development process in the event the policy and/or regulation is not designed appropriately.
- Equally, there is a risk that new housing development cannot come online in a heat network zone as the heat network does not have sufficient anchor demand or connections to be commercially viable.
- Energy UK would propose the following mitigations:
  - Requirement to incorporate the heat network connection process as part of a planning application.
  - Zoning to be prescriptive with zones for anchor demand so that the issue occurs as rarely as possible.
  - Provision of subsidies by DESNZ to the heat network developer to cover lost revenue from missing connections until such time as commercial or residential properties are in a position to connect.
  - Sufficient time for each stage of the connection process to be included as part of the heat network zoning policy (See Q24).
  - Tax incentives for developers and building owners to positively incentivise them to participate in the connection process.
  - Grant funding being made available for voluntary connections in a policy that is of a similar value to the Boiler Upgrade Scheme.

**Q26. Do you foresee any of the proposals in this consultation placing disproportionate burdens on the following? If so, indicate what the impact could be on housing supply.**

**a. Housing developers in general**

**b. SME housing developers**

- It is possible that the proposals in this consultation could place disproportionate burdens on housing developers.
- This disproportionate burden could in turn create issues with the supply of new housing.
- As stated previously, the best way to mitigate against this is:
  - Requirement to incorporate the heat network connection process as part of a planning application.
  - Zoning to be prescriptive with zones for anchor demand so that the issue occurs as rarely as possible.
  - Provision of subsidies by DESNZ to the heat network developer to cover lost revenue from missing connections until such time as commercial or residential properties are in a position to connect.
  - Sufficient time for each stage of the connection process to be included as part of the heat network zoning policy (See Q24).
  - Tax incentives for developers and building owners to positively incentivise them to participate in the connection process.
  - Grant funding being made available for voluntary connections in a policy that is of a similar value to the Boiler Upgrade Scheme.

Exemptions:

**Q27. Do you agree that the agreement phase is an appropriate time for building owners to apply for exemptions? If not, please provide an alternative suggestion.**

- The agreement phase is the most logical time for exemption applications to be submitted.
- However, the Central Authority should have completed sufficient due diligence in the zoning stage and therefore should not have created zones where there are likely to be large numbers of exemptions granted.
- The Central Authority should sufficiently empower Zone Coordinators to exercise their discretion on accepting exemption applications outside of the agreement phase.

**Q28. Do you agree that exemptions should be either temporary or conditional? If not, please provide further details or suggest alternatives.**

- Energy UK agrees that exemptions should be temporary or conditional.
- However, we would appreciate further detail on the conditionality of such exemptions.
- We would also add that exemptions should be the exception rather than the norm.
- Demand assurance is crucial for the economic viability of heat networks. The current proposals for instances in which exemptions are permitted does not provide adequate peace of mind to industry.

**Q29. Should leaseholders be provided with a route for requesting an exemption? Please provide further details, such as when this may be allowed.**

- Leaseholders should be granted exemptions automatically due to their lack of control of the building they reside in or their business operates from.

- However, building owners who lease to occupiers in this fashion should be required to demonstrate that their property is eligible for an exemption under the specified criteria.

**Q30. How frequently should buildings holding a conditional exemption have to reapply? Please suggest a single number of years and any mitigations to reduce the burden of reapplying on building owners.**

- Energy UK believes conditional exemptions should last no longer than five years before renewal is required.

**Q31. Do you agree that building owners or developers should be able to apply for exemptions on grounds of either a) cost or b) timing? If not, please explain why.**

- Building owners and developers should be able to apply for exemptions based on cost and/or timing.
- We agree with DESNZ that all exemptions issued based on timing should be temporary.

**Q32. What costs should the Zone Coordinator consider when assessing a cost-based exemption, and what is a suitable counterfactual?**

- Energy UK supports DESNZ's proposal to grant exemptions based on the availability of a more suitable low-carbon energy source.
- However, there should be limited scope for issuing exemptions based on cost due to overly punitive network or building side factors.
- The Central Authority should have completed sufficient due diligence in the zoning stage and therefore should not have created zones where there are likely to be excessive numbers of exemptions granted.
- As such, the proposal that Zone Coordinators must ensure applicants have exhausted available funding routes before issuing a cost exemption is welcome.

**Q33. Do you agree that an exemption extension may be granted if connecting to the heat network will increase the carbon intensity of building's heating systems? Note, that will only apply to exemptions based on having an existing low-carbon heating system. If not, please provide further detail.**

- Exemption extensions should be an option if a heat network connection will increase the carbon intensity of the building's heating systems.
- The Central Authority should have completed sufficient due diligence in the zoning stage and therefore should not have created zones where there are likely to be excessive numbers of exemptions granted.
- For those buildings with low-carbon communal heating systems, a straightforward/streamlined approach to exemption should be provided. It makes little sense to force buildings to end their connection to one form of heat network to join another for no environmental benefit. If it becomes cheaper to join the district heat network rather than maintain the in-place communal system, building owners will do so.

**Q34. Do you agree that corrections of misclassified buildings should occur during the agreement period? If not, please provide further detail.**

- Energy UK agrees that corrections of misclassified buildings should ideally occur during the agreement period, but we stress that Zone Coordinators should be empowered to allow for exceptional circumstances where building owners could not supply the data during the agreement period.

- The Central Authority should have completed sufficient due diligence in the zoning stage and therefore should not have created zones where there are likely to be excessive numbers of exemptions granted.

**Q35. Do you think there are any other points in the requirement to connect process where a notification should be issued to a building owner? Please describe the information it should contain.**

- Energy UK supports the proposed content within the 'Activation of the requirement' notification.
- The notification of the requirement to connect and exemption applications should occur at the earliest possible point in the process.
- This will facilitate the development of a sustainable financial model by the heat network developer.

**Q36. Please provide any comments on the following interventions which could increase voluntary connections in zones; a) a duty to provide a simple application process and provide quotes when asked, b) a duty to offer connections to buildings, c) a duty to connect buildings who request it if they pass a fair cost test, d) any other intervention.**

a) a duty to provide a simple application process and provide quotes when asked

- Energy UK agrees a simple application process is likely to increase voluntary connections in zones.
- Developers should aspire to provide quotes as a matter of best practice but should not be required to do so as pricing is subject to commercial negotiation and may be difficult to determine based on the level of demand and/or stage in the project development process.

b) a duty to offer connections to buildings

- This is a welcome step, but it is unlikely to increase voluntary connections as building owners will connect voluntarily in the event, they judge a heat network to be in their interest or by force if compelled to do so.

c) a duty to connect buildings if they pass a fair cost test

- This is likely to increase the number of voluntary connections as it allows both heat network developers and building owners to assess if a heat network is in their financial interest.
- Assuming the heat network provides low carbon heat, and the heat network provides heat in a cost-competitive way, this measure will highlight the value heat networks can deliver.
- Energy UK would appreciate further clarity on the definition of a 'fair cost test' and how this will operate within the scope of the policy.

d) any other intervention

- No response.

### Heat Sources:

**Q37. Do you agree that the Zone Coordinator should be responsible for heat source investigation and preparation of a heat source report? If not, please provide further detail.**

- Energy UK takes the view that it would make sense for the Zone Coordinator to prepare a heat source report for the consideration of heat network developers.
- However, the identification of a specific number of heat sources in a given zone in the report should not forbid heat network developers from developing a heat network using an alternative source of heat in the event it is more cost-effective and/or environmentally sustainable or if the heat sources cited in the Zone Coordinator's report are not commercially viable.

**Q38. Do you agree that heat network developers should be required to include heat source plans in their Zone Development Plans? If not, please provide further detail.**

- Energy UK agrees with this proposal as it will reduce instances of speculative bidding in designated zones.
- There will be some Zone Development Plans where heat source plans are less relevant, for example, shared ground loops, which may simply draw upon ground heat. Requirements for heat source plans shouldn't be so specific that they act to exclude certain bids.

**Q39. Should owners of heat sources be able to appeal a decision requiring them to connect to a heat network or give access to a heat source? If not, please provide further detail.**

- Owners of a heat source should be permitted to appeal a decision requiring them to connect to a heat network or give access to a heat source.
- In many instances, a heat source may have another vital function in the area where it is located.
- For example, a heat source in a given area may be important for the operation of a local business that employs many local residents.
- Equally, industry is of the view that the clean energy transition must operate based on consent from relevant stakeholders. The ability of those stakeholders to submit appeals against decisions is a logical part of that.

**Q40. Do you agree that a) the requirement to connect should prioritise high-temperature heat sources, and b) the requirement to give access should apply to low-temperature infrastructure heat sources and the location-specific ambient heat sources? If not, please provide further detail.**

- Prioritisation should occur based on cost, carbon impact and capacity (in that order).

### Heat Source Pricing:

**Q41. Do you agree that this is the right general approach for the Zone Coordinator to take in assessing whether a heat source should be required to connect? If not, please provide further detail.**

- No response.

Requirements on heat networks in zones:

**Q42. Do you agree with the following proposals? If not, please provide further detail.**

**a. All consumers will be guaranteed transparency on the prices charged by heat networks.**

- Energy UK welcomes this proposal.
- However, we would stress the importance of allowing heat network developers to be the party that is primarily responsible for price determination.

**b. Standardised templates will be set out how pricing should be presented to heat network customers within zones.**

- Energy UK welcomes this as it is likely to simplify and standardise the process for developers, Zone Coordinators and heat source owners.
- However, it is important that any such template should account for the differences that may exist between zones and different heat network technologies. For example, some low-temperature heat networks will not charge for the consumption of heat.

**c. Zone Coordinators will be permitted, but not required, to set pricing conditions on the award of a zone to a developer.**

- Energy UK is unable to support this proposal in its current form.
- While industry recognises the importance of ensuring that consumers receive low carbon heat at a reasonable cost and that pricing conditions & cost recovery are key components of this, allowing Zone Coordinators to unilaterally set pricing conditions may reduce the overall attractiveness of heat networks as an investment proposition by reducing price discovery by developers.
- As such, the policy may be better aligned with a competitive market if it were instead that "Zone Coordinators will be permitted, in consultation with developers, to set pricing conditions."
- Industry would appreciate additional information on what the department is proposing in this area in their response to this consultation.

Carbon emission requirements of heat networks in zones:

**Q43. Which, if any, of the three proposed emissions limits should be set as the initial limit in 2030? If none, please provide an alternative proposal for the initial limit on emissions.**

- Energy UK appreciates DESNZ's consideration of interlinking policy interactions including the Future Homes Standard and rebalancing gas and electricity prices in determining the emissions limit for heat network zones.
- A recurring feature of heat networks is that there is considerable variation between zones in terms of available heat sources and their carbon impact, the generation capacity & synchronicity of those assets as well as the projected level of demand in a given zone.
- While industry would like to ensure that individual heat networks have the lowest possible carbon impact, it is ultimately very difficult for stakeholders to estimate what carbon emissions will be in each future heat network zone at this time given that a considerable amount of the information that would be required to make such a calculation is not available.
- With this in mind, Option 2 - 147g CO<sub>2</sub>e/kWh is currently the most realistic option.

**Q44. Do you agree that introducing the emissions limit from 2030 will give adequate time for heat networks to adapt? If you disagree, what would be an adequate alternative timeline?**

- Energy UK objects to the premise of this question.
- It is estimated by EUK members that the development timeline for a heat network from initial stages to completion is five years or more.
- Assuming that the department develops its heat network policy in line with the agreed timeline, the majority of heat networks will be energised post-2030 or shortly beforehand and thus will not need to 'adapt', rather they will need to include the designated emissions limit within their project's operating model.
- In our view, the department is de facto proposing that heat networks in the newly designated zones must adhere to the agreed emissions limit while the few existing heat networks must adapt to the emissions limit.
- To avoid misunderstanding, Energy UK supports both of these conditions – but we would encourage the department to approach these issues with more realistic terms of reference.

**Q45. What would be appropriate intervals for reviewing the national zoning emissions limit?**

- Energy UK takes the view that the national zoning emissions limit should be reviewed every five years.
- This will allow the department to take the project pipeline, operational heat networks and available heat sources in each heat network zone into consideration.
- A shorter interval is unlikely to capture movements in the market, while a longer interval may result in excess carbon emissions as a result of an emissions limit that no longer reflects the reality of installed heat networks.
- Within this frame, we would also appreciate greater clarity on the DESNZ methodology for setting emissions limits and reviewing them.
- We would suggest that sensible limits and grandfathering are put in place to protect incumbent investors. Policy consistency in terms of emissions requirements is crucial for encouraging investment in space.

**Q46. As a heat networks company operating heat networks:**

**a. Do you currently measure greenhouse gas emissions of your heat networks. If so, how is this done?**

- No response.

**b. Is this linked to any formal monitoring requirements, for example the UK Emissions Trading Scheme (ETS), Display Energy Certificates?**

- No response.

**Q47. Please provide comments, if you have any, on the above initiatives to make heat provided by heat networks affordable and any further suggestions if you have them.**

- No response.



Stage 1: Zone identification and refinement:

**Q48. Should the zone refinement stage allow more general refinements? Please provide any specific examples of other factors which could be considered.**

- In line with Energy UK's view that each heat network zone should be managed both as part of an England-wide strategy and according to its specific needs, Energy UK agrees that the zone refinement stage should allow for more general refinements.
- General refinements in this case could include taking into account other forms of heat network technology.
- Zone refinement may look to identify areas that may be particularly suitable for other forms of heat networks. This may be within the existing heat network zone opportunity areas or even smaller additional areas.

**Q49. Do you agree that we could not introduce any requirements around the minimum or maximum size of a potential heat network zone? If not, please provide further detail.**

- Energy UK agrees with the department that *"setting a maximum zone size will limit ambition and undermine the premise of interoperability and interconnection of networks in the longer term."* Interoperability and interconnection should occur in instances where it is commercially and/or technically feasible.
- The same rule should apply in terms of setting a minimum zone limit. In the event that a developer or a community wishes to develop a small heat network in a manner that is commercially viable, Energy UK takes the view that DESNZ policy should not impede this.
- Energy UK would support encouraging developers to consider other projects in a given zone to ensure that the prospect of connecting to existing projects is given full consideration in locations and instances where this may be beneficial.
- As a general approach, heat network policy should provide developers with maximum flexibility to develop across local authority boundaries.
- The consultation notes that some smaller 'heat network opportunity areas' may not be designated as heat network zones and an alternative route may be created to allow these areas to be developed should zone coordinators and network developers be interested. Energy UK would support this approach.
- Such an approach may need to be streamlined compared to full designation, to reflect the smaller network opportunity available. However, many of the same rights and responsibilities will be required, including connection requirements to ensure the area can be developed at a reasonable pace.

**Q50. Do you have views on whether and how to introduce rules regarding the aggregation of smaller indicative heat network zones?**

- In principle, Energy UK does not object to the aggregation of smaller indicative heat network zones in instances where the zones are running uneconomically.
- However, this should be subject to developer consent in the event aggregation occurs post-awarding of a zone for development.
- Energy UK would appreciate further clarity from DESNZ in their response as to under what circumstances this should occur.
- Energy UK is aware of the potential introduction of competition rules that would exclude low-temperature heat networks from zones on the grounds that these would prevent interconnections and zone amalgamation. Interconnection of zones should

be supported, but it would be concerning if the Government set competition rules to preclude certain technologies from participation.

- There may be instances across, or within zones, where low-temperature networks present the most appropriate and lowest cost solution - this may be for a whole zone or for areas within a zone. DESNZ should consider how best to enable a robust competitive market to deliver the best mix of technologies within zones through an effective methodology, avoiding picking winners or a blanket ban on specific technology types.

Data requests and the requirement to provide information:

**Q51. Please suggest any additional information which should be included in the formal notice to request information from an organisation.**

- The proposed method for sourcing data from organisations is concerning.
- Firstly, the assertion that *“much of the data required for zone identification will not be commercially sensitive”* is a sweeping statement that arguably does not take into consideration the wide variety of companies and Government organisations that may be present within a given heat network zone.
- Secondly, the issuance of a notice to share data at the risk of incurring penalties in the event of non-compliance presents a risk for societal buy-in of heat networks.
- Forcing large organisations (who are likely to be the largest users and suppliers of a heat network) to supply data against their will likely reduces their willingness to connect to a heat network.
- We would encourage DESNZ to include clauses within the policy that allow exemptions to supplying data to be given to both allow for exceptional circumstances and to moderate the overall tone of the policy.
- Equally, penalties should be used as a last resort to maintain large energy user support.

**Q52. Please provide any views on types of data which could be difficult or costly to provide. Specify the type of data and which organisation would supply it.**

- It should first be noted that the types of data which could be difficult or costly to provide will vary considerably depending on the heat network zone.
- For example, heat demand of buildings and/or information about waste heat in one area may be tracked as part of the heat source’s owner’s sustainability strategy while planning data for the relevant area may be difficult to source due to issues with a local authority.
- Considering this, Energy UK would reiterate that heat network policy should be sufficiently flexible to allow for regional variations.

**Q53. Do you agree that the Central Authority should review the zoning methodology every five years? If not, please provide alternative suggestions.**

- Energy UK agrees that the Central Authority should review the zoning methodology every five years.

**Q54. What factors should the Central Authority consider when reviewing the zoning methodology?**

- The first review should look to include assumptions about a wide range of heating and heat network technologies to ensure a technology-neutral approach.

- The current cost comparison between individual ASHP and high-temperature district heat networks may not represent a full analysis of the lowest-cost heating technologies for given areas, and further cost considerations may need to be set out.

**Q55. Do you agree that changes to the zoning methodology following a review should not apply retroactively to existing zones?**

- We welcome a willingness on the part of the Central Authority to adjust and consult on changes to the zoning methodology if it is determined that they need revision.
- We agree that such reviews should respect pre-existing commercial agreements by not applying changes retroactively to existing zones.

Stage 2: Zone Designation:

**Q56. Do you agree that a consultation period of 21 days is sufficient for the formal consultation part of heat network zone designation? If not, please provide further detail.**

- Energy UK agrees that a consultation period should occur as part of heat network designation.
- However, 21 days is not a sufficient timeframe for such an exercise.
- For the consultation to be successful in considering all stakeholder viewpoints, the following must occur:
  - Heat network developers must appraise the commercial viability of such a zone and draft a response.
  - Businesses and community interest groups must consider their views and draft a response.
- It is therefore unrealistic to expect that a 21-day consultation period will achieve the desired outcome unless significant engagement has been delivered with both industry and communities ahead of the consultation.
- While Energy UK seeks a fast deployment of heat networks for both commercial and decarbonisation reasons, doing so without allowing sufficient time to consider the views of the relevant statutory consultees and other consultees would be ill-advised.

**Q57. Which of the following platforms should host the formal consultation: a) the zoning digital service, b) local authority or Zone Coordinators websites, c) other (please specify)?**

- Energy UK would prefer that the consultation be socialised with the largest possible relevant audience.
- It would thus make sense for the consultation to be hosted on the zoning digital service, with links to the consultation on the local authority website, zone coordinator website as well as any other locations deemed appropriate.

Publication and notification requirements:

**Q58. What other information do you consider should be published prior to or during the zone designation stage?**

- In addition to the items cited in the consultation document, we would also suggest that (where possible) rough cost estimates of heating via the heat network should be included as part of the designation stage.
- Providing a reasonably accurate price forecast to stakeholders and the wider public, should facilitate business and community buy-in at an early stage in the heat network development process.

The role of statutory consultees:

**Q59. Do you agree with the proposed two-tier approach to classify statutory consultees? If not, please describe an alternative approach.**

- Energy UK does not agree with this approach as it risks preventing genuine views from being heard and considered.
- In the interest of maintaining the social contract, we request that consultations be made available to all.
- However, we do not object in principle to the Central Authority ensuring and/or prioritising that responses are received from certain stakeholders such as Heat Network Developers and Local Authorities.

**Q60. Do you agree with the proposed Tier 1 and Tier 2 consultees set out in Appendix 5? If not, please provide any suggested changes.**

- See response to Question 59.

Stage 3: Zone Delivery:

**Q61. Do you agree with the proposal to use a competed process to confer special and potentially exclusive rights to zone developers? If not, please provide further details. Where applicable, refer to compliance with the Procurement Act and propose legally compliant alternatives.**

- Energy UK agrees with the proposal to use a competitive process to confer the right to develop a zone.
- The rules of competition should not restrict the heat network technologies that are eligible to bid for development rights.
- It is understood that DESNZ aims to place technical requirements, including the need for heat networks in different zones to be interoperable and to be able to connect to one another, that will intentionally lead to only high-temperature heat networks from being able to participate in most competitions and to win be awarded zone development rights.
- Whilst in many/most cases, there will be cost benefits to be had from originally separate heat networks connecting to one another - it would be wrong to assume a) that all heat networks across a given area will interconnect (particularly when operated by different parties) b) that the best consumer outcome in a given area will always be served by the installation of large high-temperature heat network.
- Given that the National Heat Zoning Model is highly unlikely to consider ambient or SGL heat networks in its modelling, the CA and the ZC's will not be equipped in advance of the submission of zone development plans from potential developers with the information necessary to inform them of what the most cost-effective heat network will be for a given zone(s).
- It would, therefore, be entirely wrong to explicitly design rules/regulations that preclude ambient and SGL networks from the competitive process. This can only lead to worse outcomes for consumers.
- Instead, the competitive process should set out key considerations/factors for ZCs to account for in the process but allow for the competitive process/submission of bid development plans to be part of the process for assessing the most appropriate technologies and approach for an area. Such considerations should include guidance to ZCs to consider how interoperability between different heat networks in adjacent areas/zones could improve consumer outcomes, but the assumption should not simply be that the best outcome will always be delivered by a single heat network type across an entire area.

- Importantly, there will likely be bids from developers (single or joint venture) that would include a mix of different technologies. Ruling such bids out from the process would be premature and short-sighted.

**Q62. What stage of project development, as shown by Options 1 to 4 in Table 6, do you think that the Zone Coordinator should achieve prior to marketing the opportunity? Please set out your reasons. If you believe a different stage is required, please also set this out.**

- The project development process for heat networks is quite complex and may vary depending on the location of, heat sources in and developers interested in the zone in question.
- To allow as many commercial stakeholders as possible to consider the opportunity and encourage price discovery via competition, the Zone Coordinator should market the opportunity once the model is released.

Principles for commercial models governing heat network zones

**Q63. Do you agree with these principles for evaluating commercial delivery models? Please provide your reasoning and any relevant evidence. If you believe any are unnecessary or missing, please explain why.**

- Energy UK broadly agrees with the proposed principles for evaluating commercial delivery models.
- However, we suggest that in the final version of the heat network zoning policy the principles are weighted in terms of priority.
- Equally, Zone Coordinators should be sufficiently empowered to be pragmatic when considering the alignment of the principles with commercial delivery models in a given zone.

**Q64. Do you agree that larger heat network zones could be divided into multiple smaller “Heat Network Zone Delivery Areas”? If not, please provide further detail.**

- Energy UK agrees that larger heat network zones could be divided into multiple smaller *“heat network zone delivery areas.”*
- We encourage DESNZ to be mindful of considering economies of scale and that larger heat networks can generally deliver more cost-effective heat, but that heat network policy should take into consideration factors including (but not limited to) technology type, technical feasibility, land access, geographical limits and demand in a given area.
- However, we object to several of the points made under the ‘Exclusivity’ heading.
- The statement that evidence suggests *“an entirely open, non-exclusive, system will result in a very limited deployment of heat networks – it is much like the status quo”* is very open to question.
- DESNZ has not cited any of this evidence in the consultation paper. Industry would like to see and consider this evidence in subsequent releases in this policy area.
- While we agree that *“some level of exclusivity to an area is essential to stimulate investment”*, the renewables industry’s experience with Allocation Round auctions indicates that an open procurement process until the point of contract award can enable greater price discovery and more competitive prices for consumers.

Considering frameworks for zone development:

**Q65. Do you agree with the option of establishing a framework for conferring zone rights for national pipeline projects as set out above? If not, please provide further detail.**

- Energy UK does not object to the idea of a framework being established for the conferring of zone rights for national pipeline projects.

**Q66. Do you agree with the option of establishing a separate framework for conferring zone rights for smaller-scale projects? If not, please provide further detail.**

- Energy UK does not object to the idea of a separate framework for conferring zone rights for smaller-scale projects.

Respecting pre-existing investment decisions – incumbents, direct awards and special conditions:

**Q67. Do you agree with the proposed approach to incumbent networks and investment, to be used following zone designation, as set out above? If not, please provide details.**

- Energy UK agrees with the proposed approach to incumbent networks and investment, to be used following zone designation.
- However, EUK requests that clarification is given on the following as regards incumbency rights:
  - When exercising incumbency rights, how can developers demonstrate that they have undergone a competitive process under the Public Procurement Act?
  - How does public procurement work for public buildings within a heat network zone?
- Separately, EUK would appreciate if formal assurances could be given to heat network developers regarding incumbency rights for existing projects not falling under public procurement procedures and/or all projects constituting competitive processes.
- Incumbency rules need to provide a tighter definition of “substantially commercialised” projects to give heat network developers confidence in project making and investment in advance of zone designation.

**Q68. Do you agree with the proposed approaches to zoning rights awarded prior to zone designation, as outlined above? Please set out your reasoning drawing on relevant examples if appropriate.**

- Energy UK does not object to the proposed approaches to zoning rights awarded prior to zone designation.

Commercial Delivery Models:

**Q69. Do you agree with the proposed shortlist of models: Authorisation and Consent (Proactive), Local Authority Joint Venture and both concession models (‘Time limited’ and ‘Evergreen’)? If not, please provide details and set out which models you believe better meet the principles for ‘zone delivery models.’**

- No response.

#### Stage 4: Zone Operation:

##### **Q70. Please provide suggestions for minimising the burden on organisations of data collection throughout the zoning lifecycle.**

- Energy UK agrees that the regulator and zone bodies should share data as much as possible to reduce instances of duplicated data collection and thus minimise the burden on organisations of data collection throughout the zoning lifecycle.
- Regarding Zone Coordinators and Central Authority's proposed powers to:
  - *"Directly request information from different organisations relevant to identifying, designating (which includes varying or revoking a zone designation) or reviewing zones."*

And...

- *"Request information from organisations who own heat sources which can provide heat to networks in zones."*
- We would like to reiterate our position from Q51 of the consultation document:
  - Forcing large organisations (who are likely to be the largest users and suppliers of a heat network) to supply data against their will likely reduce their willingness to connect to a heat network.
  - We would encourage DESNZ to include clauses within the heat network zoning policy that allow exemptions to supplying data to be given to both allow for exceptional circumstances and to moderate the overall tone of the policy.
  - Equally, penalties should be used as a last resort to maintain large energy user support.

##### **Q71. Do you agree with the intended outcomes for the monitoring and reporting regime in Table 7? If not, please provide further detail.**

- Energy UK does not object to the proposed intended outcomes for the monitoring and reporting regime.

##### **Q72. Do you agree that Zone Coordinators should be able to decide whether they want a heat network developer to hold a licence before applying for the right to develop in a zone?**

- Energy UK supports the inclusion of a requirement for heat network developers to have an appropriate licence from Ofgem to develop heat networks.
- This requirement will ensure all zones and developers are incentivised and regulated equitably.

#### Stage 5: Zone Review:

##### **Q73. Do you agree with the process for zone review described in this section, including the list of relevant changes and the role of the zoning bodies? If not, please provide further detail.**

- Energy UK believes the process for zone review is appropriate – but it should be subject to review based on the development of the heat network market and national project pipeline.
- Equally, we would also suggest that *"A substantial change in the market including the cost of capital, inflationary pressures and supply chain (as well as any other appropriate economic variable deemed relevant by industry or the Government)"* should be included in the list of 'relevant changes.'

- Given that the National Zoning Model, as currently designed, will only identify zones on the basis of high-temperature heat networks, it is critical that zone review looks to build on this, building in assumptions about low-temperature heat networks and identify areas where these will provide the lowest cost heating solution as well.

Revoking Zone Designations:

**Q74. Do you agree that the Zone Coordinator and/or the Central Authority should have the power to revoke a zone?**

- In principle, the Zone Coordinator and/or the Central Authority should have the power to revoke a zone.
- However, this should be subject to the production of evidence as to why this is necessary.
- Equally, this measure should only be taken in the most exceptional of circumstances.

**Q75. Do you agree with the process of revoking zones? Please provide suggestions for any further checks and balances on the zone revocation process.**

- Energy UK agrees in principle with the process of revoking zones.
- We welcome the proposed checks and balances to prevent the inappropriate revocation of zones.
- It would also be prudent to add *“The stage of development of any relevant heat network at the time of revocation will be assessed”* as a further check and balance.

Changing affecting heat network zones across England:

**Q76. Please provide suggestions as to how the zoning bodies should respond to wider changes which may affect all heat network zones simultaneously.**

- Energy UK is tentatively of the view that the best way for zoning bodies to respond to wider changes which may affect all heat network zones simultaneously would be to make ex-post changes to the heat network route to market.
- Examples of such changes include increasing the rate of indexation or postponing longstop dates.
- However, Energy UK would need more detail on the proposed route(s) to market and duration of exclusivity rights for heat networks before we could comment authoritatively on the best way for zoning bodies to respond to wider changes in the market.

Enforcement, penalties and appeals:

**Q77. Do you agree with the suggested penalty brackets? If not, please provide further detail.**

- Energy UK welcomes DESNZ's statement that enforcement and penalties will be used *“as a last resort once other measures have failed, such as negotiating, grace periods, exemptions and funding support.”*
- The penalty brackets are appropriate, but we would stress the importance of Zone Coordinators and the Central Authority exercising discretion in applying them to ensure there is societal buy-in of heat networks.



**Q78. Should penalties apply to individuals and organisations below £2 million turnover? If not, please provide further detail.**

- Energy UK has reservations about the imposition of penalties on smaller organisations.
- Small & medium enterprises (SMEs) are a crucial part of the British economy – particularly in areas of the country that are less developed. Equally, low-turnover organisations are likely to operate on much tighter margins.
- Imposing additional costs such as fines on these organisations may in some instances cause business failure.
- It is evident therefore that there is a careful line to be walked between incentivising and ultimately forcing necessary change to achieve decarbonisation of heat demand.
- In light of this, penalties should only be applied to individuals and organisations below £2 million turnover on a case-by-case basis.

**Q79. Do you agree with the proposed methods for calculating penalties? If not, please set out details of alternative methods.**

- Energy UK does not object to the proposed calculation method.

**Q80. Do you agree with the proposed internal review and appeals process? If not, please provide further detail.**

- Energy UK does not object to the proposed internal review and appeals process.