REA Heat

Heat network zoning consultation

Members Discussion

1st February 2024

@REAssociation

THE ASSOCIATION FOR RENEWABLE ENERGY & CLEAN TECHNOLOGY

REA Competition Law Policy

- REA's compliance with all aspects of UK Competition Law applies to all activities of REA including its subsidiaries Member Forums, committees, working groups, technical groups, and sub-groups and any other such meeting:
  - Members are not permitted to discuss competitively sensitive information, or to use REA as a conduit for such discussions
  - Competitively sensitive information covers any non-public strategic information about a business's commercial policy. It includes, but is not limited to, future pricing and output plans
  - Please note this session is being recorded for note taking purposes.

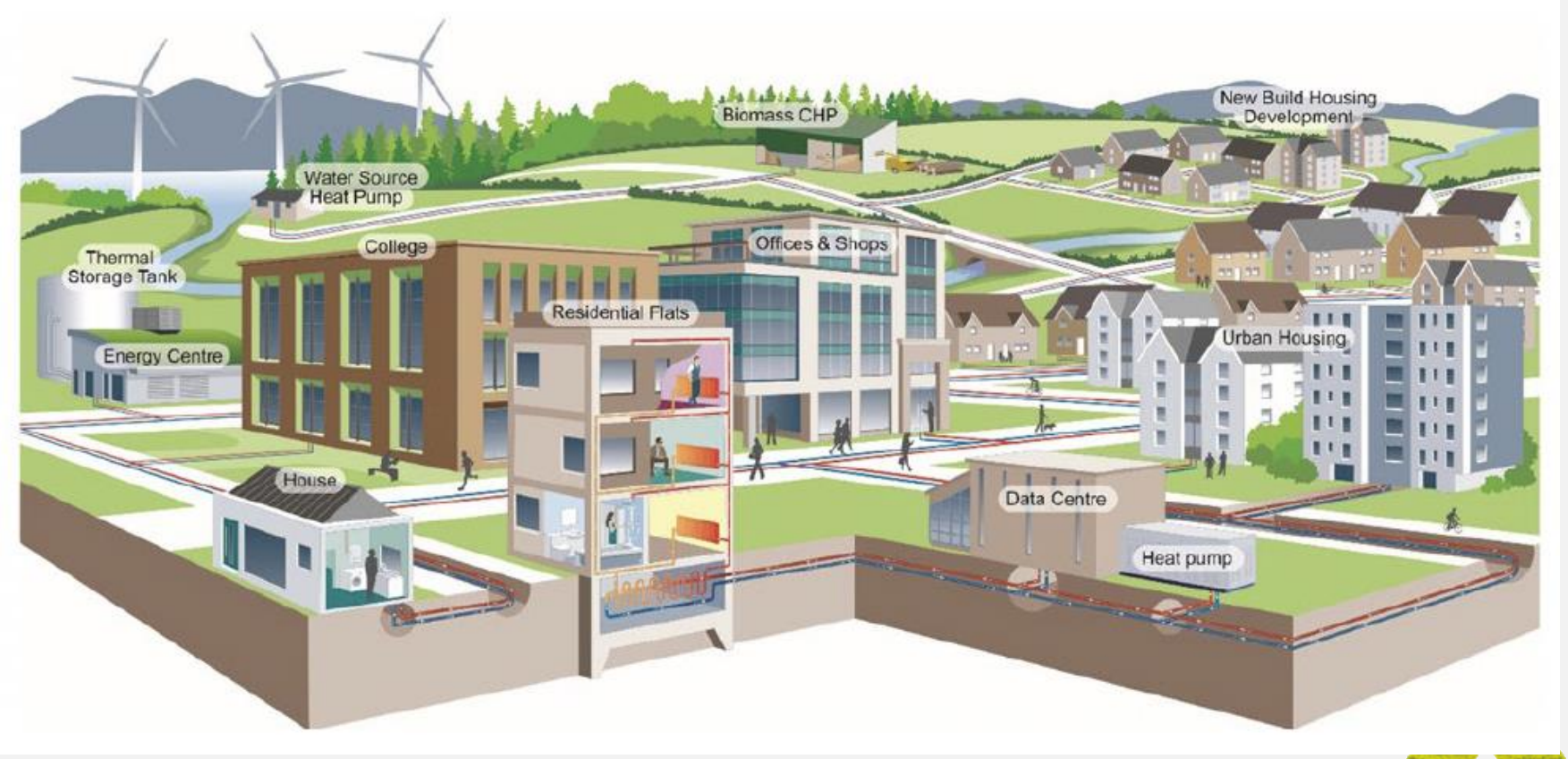
Agenda

Heat Network Zoning Members discussion

14:00- 15:30

- Introductions
- Background on Heat Networks
- Brief overview of consultation
- Key message for REA members/ technologies
- Open discussion
- Round up and next steps
- Close

Background on Heat Networks



Current Policy and Funding Available

- Funding boost: Heat Network Transformation Programme (GHNF and HNES) - £485 million will go towards (1) the Green Heat Network Fund to help around 60,000 homes and buildings gain access to low carbon heat networks; and £45 million to (2) the Heat Network Efficiency Scheme to improve around 100 existing heat networks.
- Four successful projects have recently been awarded £80.6 million under the Green Heat Network Fund (GHNF).
- GHNF Applications for Round 7 are open and will close on **23 February 2024**.
- 34 projects have been awarded £8.1 million under the the Heat Network Efficiency Scheme (HNES).
- HNES Application deadlines for Round 6 have been extended to the **22nd March 2024.**
- Application seminar Weds 6th March 10am-11am.
- Ofgem to regulate heat networks

Register for our Round 6 application seminar

Wednesday 6th March 2024, 10am-11am

Join us for our application seminar to understand more about the HNES and what is expected from a Round 6 application. You will have the chance to ask our team questions and apply best practice from Round 5.

Secure my place

Background to Consultation

- In 2019 the UK government set a legally binding target to achieve net-zero greenhouse gas emissions by 2050. In 2021, the government laid legislation for the UK's sixth carbon budget, proposing a world-leading target which would reduce greenhouse gas emissions by 78% by 2035 compared to 1990 levels.
- As heating is responsible for about 20% of the UK's greenhouse gas emissions, meeting our net-zero target will require the decarbonisation of virtually all heat in buildings and decarbonising heat is a key part of the government's strategy: it underpins the Net Zero Strategy, the Heat and Buildings Strategy and most recently, Powering Up Britain.
- Heat networks are an essential part of our path towards decarbonising heat, enhancing energy security and achieving net zero by 2050. They currently provide about 3% of total UK heat. Our analysis shows that heat networks could provide up to 20% of total UK heat by 2050.
- The Energy Act 2023 establishes the regulatory framework for heat networks in Great Britain and provides powers to introduce heat network zoning in England through secondary legislation.
- On 18 December 2023 the government published a consultation on heat network zoning. This document provides an overview of the definitions, key concepts, and proposals in the consultation

Brief overview of consultation

Aims and objectives of heat network zoning

- Under heat network zoning, central and local government will work with industry and local stakeholders to identify and designate areas of England where heat networks are expected to be the lowest-cost solution to decarbonising heat. Heat network zoning will be essential to speeding up the development of new heat networks. By indicating where heat networks are likely to be the lowest cost solution to decarbonising heat, we hope to catalyse growth where it's most needed.

- Heat network zoning will significantly increase private sector investment in the sector by removing the barriers which currently limit the pace of developing large scale heat networks. It will also give local communities the tools to accelerate the development of heat networks in their own areas and ensure that more homes and businesses can have access to greener, cheaper heat. It also has the potential to create tens of thousands of jobs across the country

Heat Sources Questions 37 - 40

Zone identification	Zone refinement	Zone Designation	Zone Delivery: Zonal market prospectus	Zone Delivery: Appointment	Zone operation.

• Central Authority (CA) identifies:
• Expected heat demand
• Potential heat sources
• **Data** about heat sources
	• Zone Coordinator(ZC) investigates identified heat sources and chooses important ones for further investigation, including the following:
	  • Heat delivery profile
	  • Investment costs of utilising heat
	  • OPEX of utilising heat
	• ZC produces a **heat source report**
		• Heat source owners informed about heat network zone designation and possible requirements they may face.	• **Heat source report** included as part of zonal market prospectus
			• Standard requirements regarding heat sources
			• Requirement for potential zone delivery partner to investigate certain heat source scenarios and designs
				• Potential heat network delivery partners make heat source designs based on different sources of heat.
				• ZC approves zone development plan based on chosen heat source design
				• Decision can be appealed.
					• Heat network operator negotiates heat delivery and heat price with source owners.
					• ZC can require connection or access to heat source if negotiations fail.
					• Decisions can be appealed

Heat Sources Questions 37 - 40

Categories of heat sources

- High temperature recoverable heat sources such as combined heat and power (CHP), Energy from Waste (EfW), combined heat and cooling as well as high temperature heat resulting from industrial processes.
- Low temperature 'near constant' recoverable heat sources - for example, wastewater treatment, datacentres, electricity transformers, gas compressors, mines, cold stores, underground railways.
- Low temperature 'intermittent' recoverable sources – for example, sugar mills, breweries, foundries, supermarkets.
- Ambient location specific sources – for example, solar, river, sea, canals.
- Ambient location agnostic sources such as air-to-water heat pumps.

'Requirements to connect heat sources should apply to only high temperature heat sources, and requirements to give access (to land, for example) to low temperature infrastructure and some ambient heat sources.'

40. 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?

Carbon emission requirements

The Central Authority will set maximum gCO2e/kWh limits for new heat networks in zones and new connections of existing heat networks in zones. These limits will apply from 2030.

- **Option 1 - 44g CO2e/kWh**: This option is equivalent to the low-carbon threshold required under the Green Heat Network Fund adjusted by the predicted change in the CO2e of electricity grid intensity by 2030 as per the Green Book projections.

- **Option 2 - 147g CO2e/kWh**: This option will represent a reduction in CO2e emissions for some heat networks predominantly using gas-generation.

- **Option 3 – 83g CO2e/kWh**: This option is a middle option between option 1 and 2. It is based on a fuel mixture that is less carbon intensive than option 2, that assumes the use of less gas and more renewable or waste heat.

Key questions

43. 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.

44. 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?

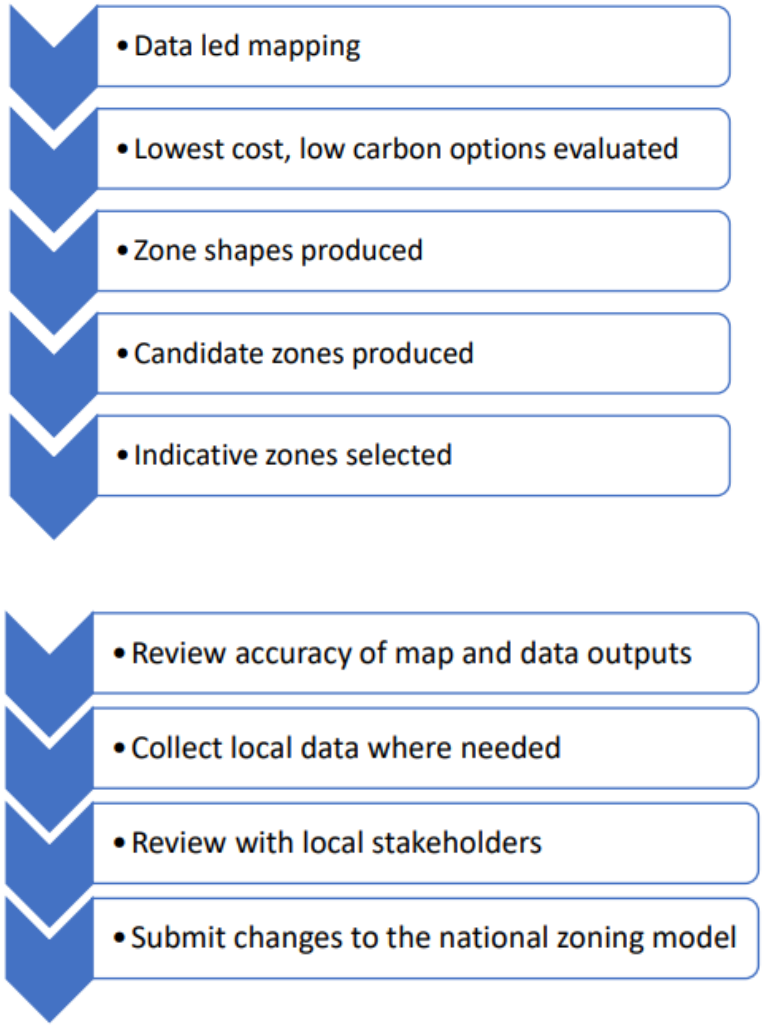
45. What would be appropriate intervals for reviewing the national zoning emissions limit?

Stages 1-5

- 5 stages to the heat network zoning lifecycle:

  1. Zone identification and refinement
  2. Zone designation
  3. Zone delivery
  4. Zone Operation
  5. Zone Review

- **Stage 1:** The Central Authority will lead a data-driven national mapping exercise, using the National Zoning Model, to identify indicative heat network zones **– areas in which heat networks are expected to be the lowest cost technology for decarbonising heat.**
- The Zone Coordinator will use a standardised approach, with accompanying guidance, to refine the indicative heat network zones.
- The zoning bodies will source data from national datasets, or other publicly available sources. However, when necessary the zoning bodies may request information directly from organisations.
- The Central Authority will review the zoning methodology every five years. Changes will not retroactively apply to existing zones



Stages 1-5

Stage 2: Zone designation

- There are 2 parts of designation: (a) agreeing the proposed shape in a formal consultation and (b) registering the areas with the Central Authority
- There will be a two-tier approach to consultees in the consultation process.
- Tier 1 will include bodies expected to have an interest in most heat network zones such as heat network operators and local planning authorities. The Zone Coordinator must provide these bodies with an opportunity to respond to the consultation. These are the statutory consultees.
- Tier 2 bodies may have an interest depending on the location and/or nature of a specific zone. Zone Coordinators may wish to seek their views, but there will be no requirement to specifically consult these parties

Stage 3: Zone delivery

- Will be the process by which a Zone Coordinator, or the Central Authority acting as a Zone Coordinator, will be able to confer “zoning rights”, provided by heat network zoning legislation, to specific organisations.

Stage 4: Zone operation

- During the operation stage, developers will construct new infrastructure, make new connections, and maintain and operate their heat networks. The Zone Coordinator will also collect data for monitoring and reporting purposes.

Stage 5: Zone review

- Changes in local circumstances may require a reassessment of the designation. Zone review will only allow for the expansion of designated heat network zones.

Stages 1-5 ~ Questions 48-80

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

52.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.

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

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

73. 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.

Appendix 5 – Proposed statutory consultees

Tier 1 consultees – statutory.	Tier 2 consultees – optional.
• Electricity distribution network operators • The Environment Agency • Existing heat network operators within a proposed zone. • Gas distribution network operators • Highways England • Homes England • Local authorities within or adjoining a potential heat network zone. • Local planning authorities, covering areas within or adjoining a potential heat network zone.	• Canal & River Trust • Citizens Advice • The Coal Authority • English Heritage • Forestry Commission • The Gardens Trust • Heat Trust • Historic England • Marine Management Organisation • Natural England • Network Rail • Owners of anchor loads • Owners of heat sources • Transport for London (TfL)

Key message for REA members/ technologies

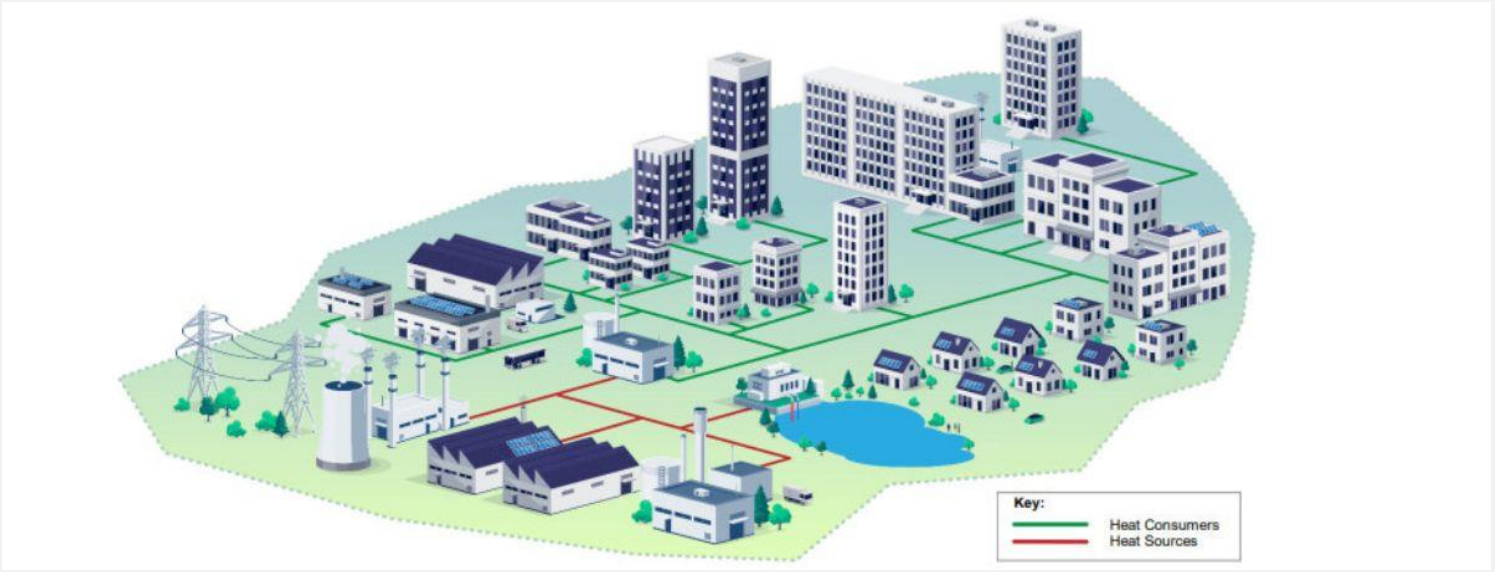
High Level Messages

- Encourage Technology Agnosticism – all potential low carbon heat sources should be considered. This includes biomass, green gases, wastewaters and raw sewage, thermal storage, geothermal, heat pumps, energy from waste and solar. Important to ensure the right technology for the right situation.
- Reference UK's Biomass Strategy, which emphasises bioenergy technologies have a role to play in decarbonising heat.
- Interaction with other support schemes – ensuring sites can take part when in receipt of other government support.
- Renewables obligation is coming to an end, impacting EfW and Biomass, we need assurances now – this needs to be taken into consideration in heat network planning.
- Need for planning reform alongside this and not excluding full range of delivery partners.
- It is important that the methodology is not too rigid and allows for flexibility so that decisions can be taken at the local level based on the local context, and updated when new technologies are developed or new heat sources identified.

High Level Messages

- Regulations should be in accord with those set out by the Environment Agency and permissions acquired through Environmental Permits as already takes places.
- Transparency about future plans to reductions in emissions limits.
- Ensure sufficient business case when connections are being mandated.
- Innovative heat sources data might be more difficult to get access to.
- Need to consider relationship between heat and power production. It's possible that if a site becomes predominately heat production then power production might decrease and that current data on heat production might be based on numbers prioritising power production.

Open discussion



Next steps/ Timeline

Webinars and information sent around: Next week

Consultation Response REA Draft: W/C 12th February

Member Feedback: February

Consultation Deadline: 26th February 2024

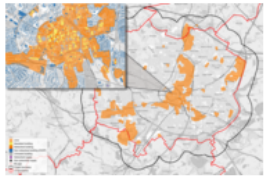
Webinars

Heat network zoning: An introduction - 4 January, 2pm

This session is aimed at people who may not have engaged with heat network zoning before or who need a refresher on the policy. We will present an overview of what heat network zoning is likely to mean for different types of organisation and what they may need to do to prepare.

Heat network zoning: Consultation overview - 9 January, 11am

This session will provide an overview of the consultation on heat network zoning. It will provide attendees with the chance to better understand the various topics and issues that the consultation covers as well as the timelines for implementing the policy. It will also feature time for questions at the end of the session.

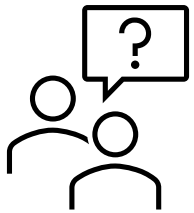


Heat network zoning: Requirements in zones - 15 January, 10am

This session will focus on the section of the consultation on requirements in heat network zones. It will go into greater detail on the requirements for building owners and operators, as well as sources of waste heat within zones. It will also feature time for questions at the end of the session.

Heat network zoning: Delivery of zones - 26 January, 11am

This session will focus on the section of the consultation on delivery of zones. It will go into greater detail on the processes by which specific organisations will be conferred rights to develop and operate heat networks within zones.



Triple Point HEAT NETWORKS INVESTMENT MANAGEMENT

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Thanks

As always if you have any questions please get in touch:

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Useful Links

- Heat Network and Transformation programme Heat networks - GOV.UK (www.gov.uk)
- Heat Network Zoning Consultation
- Heat network zoning - GOV.UK (www.gov.uk)
- Proposals for heat network zoning 2023 - GOV.UK (www.gov.uk)
- Green Heat Network Fund (GHNF) PowerPoint Presentation (tp-heatnetworks.org)
- Heat Network efficiency scheme – currently Rond 6
- Apply for the Heat Network Efficiency Scheme (HNES) Round 6 - GOV.UK (www.gov.uk)
- Energy Act 2023 Energy Act 2023 (legislation.gov.uk)