REA response to DESNZ Heat Network Zoning Consultation

The Association for Renewable Energy & Clean Technologies (REA) is pleased to submit this response. The REA represents industry stakeholders from across the sector and includes dedicated member forums focused on green gas & hydrogen, biomass heat, biomass power, renewable transport fuels, thermal storage and energy from waste (including advanced conversion technologies). Our members include generators, project developers, heat suppliers, investors, equipment producers and service providers. Members range in size from major multinationals to sole traders. There are over 500 corporate members of the REA, making it the largest renewable energy trade association in the UK.

The REA strongly supports the governments drive for heat networks to decarbonise heat systems and so were particularly pleased to have this so positively included within the Energy Act 2023. We have members that have developed sites under a number of heat incentives such as the Renewable Heat Incentive (RHI), the Green Gas Support Scheme (GGSS), and from a wider scheme perspective, the Renewable Obligation (RO) and Hydrogen strategy. We are responding to the consultation considering all the various technologies that could be involved in the powering of heat network systems, including direct heat sources, recoverable heat and energy sources for heat production. This applies to both new or existing generation assets. The REA have also previously engaged in the consultations on Heat Network Zoning as well as for the Green Heat Network Fund (GHNF).

The consultation responses were split over 80 specific questions. Although the REA represent a diverse group of members, we do not represent residential and office developers or members of the public. We have therefore taken the decision not to respond to each specific question but to provide an overarching response, focussing on key questions. We have also set out some key messages which do not easily fit within some of the questions listed. However, we have tried to collate our response keeping to the section headings.

Questions 1-7 Roles, and responsibilities

We agree there needs to be clear roles in the administration and delegation duties for the heat network zoning implementation. The need to have a central authority for the heat network zoning is recognised and understood and especially that this would sit, at least initially, within the policy making department. This is similar to the support role that the Heat Network Delivery Unit (HNDU) had within the previous administration of Heat Networks under the Green Heat Network Fund (GHNF). The ability to be able to work with an overall point of contact through the central authority will also help to provide a network hub for the zone coordinators, providing information and, importantly, a consistency in knowledge and support. In our previous consultation response, we noted that we were glad to see the government actively supporting the role of mapping and planning for Heat Network zoning and it seems many of the initiatives proposed in this consultation would go a long way to modernise and improve local area energy mapping.

Similarly, the designation and deployment of a more local ‘zone coordinator’ would enable a localised focal point, sitting either within a local authority or combined authority where there

may be some cross over. This would enable local considerations to be better understood and provide a link to the planning department which would be a significant benefit. It's also recognised that zoning across authority boundaries outside of a combined authority provision should be avoided where possible.

In our previous consultation response, we noted that local authorities and consumers should be put at the heart of heat network zoning. We support that the role should be fulfilled by a local authority, providing that they have the appropriate skill set and are sufficiently funded. However, members have highlighted concerns about the role sitting solely within the local authority, therefore it is important that significant management and support should still come from the central body at DESNZ. Furthermore, it is important that the zoning coordinator should remain a public body, accountable to the public, to avoid conflicts of interest. It should remain centralised within the local authority and easily accessible by council officers. We also noted in our previous response that the zoning coordinator should be empowered to assess the best renewable heating technology for the district heating zone with functions to conduct research and assessments to find the most suitable technology. This needs to be done in consultation alongside local authorities, residents and industry experts. We therefore welcome the proposed provision of responsibilities for the role.

However, there are some concerns when considering the financial renumeration for the zone coordinator and where they will sit. The ability for a local authority to be able to fund the role is uncertain. We are aware that there are some available routes for funding through existing schemes (HNDU and GHNF), and the consultation provides some options with acknowledgement of the need for additional funding, but it is unclear how much of the 'local authority funding available' would come from central government. Therefore, there is a concern that the role may 'not be required/accepted' by the local authority and end up being brought under the control of the central authority in some of the zones, as identified as a route within the consultation. Thus, it may be better if funding for the zone coordinator were to come directly from central government in the initial stages to help cover capital expenditure until such a time that the zone is established and the Local Authority can cover some of the operational costs. This is especially important given the initial resources required to complete the identification, refining and coordination works, will be front-loaded.

We also welcome the statement that consent fees will be further consulted on so, at this stage, we will only comment to say that it needs to be recognised that any additional costs laid on to the developer could end up being recovered through the scheme by either the heat source/provider or end users. It is by no means certain that there will be developers that would want to bid on the network and this uncertainty will need to be resolved. We understand from the consultation that there is no obligation for the developer to use a designated heat source, and additional fees on the developer could encourage them to use their own heat source. This would need to be considered when a decision is made to ensure relevant protections.

We note there is also industry concern over the number of potential authoritative bodies being created to administer heat network zones, especially given that Ofgem will be the ultimate regulator ensuring public money is spent correctly. This could create some confusion and possible disconnect, with concern about who will make which decisions and where the true authority will lie. This is of particular concern where possible heat source disputes may arise,

which will be covered in more detail in the later relevant section, but care must be taken to ensure there are clear demarcations of responsibilities and powers between bodies, with there also being appropriate escalation routes when issues need to be raised.

Questions 8- 36 Buildings specific information (connections, exceptions etc)

As previously mentioned, we do not represent members of the public or developers of residential and office buildings. Our particular interest would be with the heat sources although we do represent some members that may form part of the process (finance, consulting, legal etc). Therefore, it would not be appropriate for us to provide extensive comment on this section.

However, one overarching concern of note is in how the framing of mandating connections is managed. As a trade association working with renewable energy project developers, we are keenly aware of the importance of minimising backlash and opposition to planning applications. To avoid friction in connecting to heat networks from the communities and businesses involved, the importance of highlighting the positive aspects and *opportunities* of connection, providing ample information ahead of time, and making the process feel democratic, were highlighted by REA members as likely to be important for success.

Additionally, new developments are increasingly being controlled under private management fees (e.g. lighting, roads), rather than solely through council tax. The impact of potentially stacking fees onto consumers, in addition to council tax, should be considered. To ensure the benefits of low-cost heat are not undermined, with heat network payments being considered 'just another fee', fees must be transparent and their benefit to consumer explained.

Heat Sources (Questions 37-40)

We have provided answers to the individual questions in this section, given their relevance to REA members. However, it is also important to make the following points which are not sufficiently covered within the consultation. There are concerns that the heat sources are not specific enough to understand what is and isn't included. In our response to the previous consultation, we encouraged the government to consider all forms of low-carbon heat and energy technology when mapping out heat networks. This includes biomass, green gases, thermal storage, geothermal, heat pumps, energy from waste and solar.

It would be very useful, not only to our members but also to those coordinating the heat zones, to have clear guidance on which heat sources are included. It will be important for the process to ensure that a clear list of those low-carbon technologies that should be considered are included for the purposes of this consultation and the process from this point forward, as has been made more explicit within the GHNF. We would encourage the government to consider all potential low carbon heat sources, as it is important to ensure the right technology is used in the right situation. Furthermore, not only are there opportunities to be heat sources but some plants such as biogas/biomethane production can be used in replacement of natural gas in boilers or CHP units.

We would also encourage DESNZ to work with local producers of renewable heat to identify the best heat sources for each network. Not only will this be supporting British businesses and the renewables industry, but they can provide decision makers and stakeholders with strong expertise and clear local guidance. The collaboration with the zone coordinator will be vital in

this role and, as a trade association with a wide breadth of relevant technologies, we would be happy to engage.

Additionally, there are also a number of plants currently under support schemes such as the Renewable Heat Incentive (RHI and specifically NDRHI), Renewables Obligations (RO) and Feed in Tariffs (FIT), which are coming toward the end of their subsidy contract. As such, Government will need to consider how the impact of sites coming to the end of their existing contractual arrangements should be maintained so as to avoid them decommissioning and capacity being lost, which would in turn create uncertainty over their availability for connection to heat networks.

Responses to the specific questions are provided below.

37.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.

We strongly agree that the zone coordinator should be responsible for the heat source investigation and therefore the preparation of a heat source report, provided that the coordinator is appointed with the appropriate skill set. As the coordinator will be provided with the outputs of the national mapping exercise for the zones and would have been allocated to a zone accordingly, knowledge of why these have been designated would be known with any relevant information provided.

It is expected that information on both zone designation and coordinator personnel will be published publicly and in enough time that any applications from possible heat sources not already assigned/ accounted for, could approach the coordinator for assessment and inclusion, as part of the iterative approach to zone allocation. What is not yet clear, is who the point of contact should be for parties interested in being considered under a potential zone where there is not a zone currently assigned.

38.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.

It's understood that there will be a need for the developer to provide evidence that they have investigated and are aware of the potential heat sources in the zone. For the sake of transparency, it will be important to use not only the information from the zone mapping and designation process but also where they are anticipating an alternative heat source, demonstrating evidence of this.

39.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.

We represent members that provide high temperature heat sources including energy from waste and biomass plants. Where a plant has been designed to be both heat and power, an allocation of the split for both would be made in operations costs. Naturally, there can be a drop electricity production where heat is being extracted from the process. Therefore, a change to recover heat would impact on the total electricity generated resulting in a potential reduction in revenue, unless this is met by returns from the heat network.

It should be noted that requirements to join a heat network could lead to potential issue for any existing contractual agreements/PPA. This would be further complicated if the modelling has not accounted existing commitments or has disproportionately attributed an achievable heat capacity, and still valued this as low-cost recoverable heat. Therefore, the heat source, where assigned without application should be able to provide evidence to argue where the impact of joining a heat network may not be financially viable.

Furthermore, there are some concerns over the identification of residual heat in the process of allocating high temperature heat sources, such as for CHP units and EfW plants. Members flagged that heat produced in CHP and EfW plants is often reutilised as process heat within the industrial site or diverted for use in cogeneration or waste treatment activities, such as for anaerobic digestion, treatment of biomass, or conversion of sludges. Therefore, an assumption of recoverable heat will need to consider where heat is already being used.

Additionally, thought should also be given to how heat network requirements will interact with incoming Carbon Capture and Storage (CCS) policies, which when retrofitted to EfW or Biomass plants will divert power and/or heat generation for the delivery of negative emissions. It is important that these government policies are suitably aligned, and do not become a barrier to either the realisation of negative emissions or powering heat networks.

Lastly, the implications of the end of existing contract arrangements for heat sources needs consideration alongside zoning plans. Current government support mechanisms like the Renewables Obligation, will start to come to an end in 2027. Without clarity in the next 12 months such sites will start planning decommissioning engines and disbanding operations teams, seeing the closure of existing capacity from 2027 into the 2030s and unavailable to enter a heat network.

We are aware there may have been some missed opportunities where recoverable heat has not been utilised in heat networks due to the complexities of connecting, or current lack of commercial viability. It's hoped this process will alleviate these deterrents and encourage heat sources to get onboard, however, there are genuine concerns about being obligated for little or no return. As such a suitable appeal process is required where it is simply not commercially viable to join the network. If the process is fair and transparent, more potential sources may be incentivised to offer up residual heat for the network.

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 location specific ambient heat sources? If not, please provide further detail.

The need for at least one high temperature heat source per zone is essential given the requirements of the zone to provide heat to a complex of buildings. Low temperature heat sources could also contribute to heat network viability, especially recognising changes in seasonal demand where lower heat sources could play a role at different times of year. As such, we agree with both a and b.

There are some potential heat sources that have not been explicitly mentioned in the heat sources list that we think should be considered. Firstly, biomass boilers should be considered as they work particularly well at medium-large scales due to higher heat loads, making them suitable for use in larger properties including hospitals, schools, care homes and older

properties with low energy efficiencies. They can also operate at a higher heat load than heat pumps, making them a valuable high temperature heat source.

Secondly, Geothermal, and particularly deep geothermal, should also be considered, as this can provide baseload heat 24 hours a day. The British Geological Survey has identified many regions of the UK where there is deep geothermal potential – many of which cross over with areas of deprivation; thus, in many local authorities geothermal could provide valuable levelling up opportunities and enable the green skills transition from the oil and gas sector to renewables.

There are also routes for a heat source that can be powered through biogas, biomethane, hydrogen. In addition, such sources could be further assisted by advanced thermal storage systems, ensuring that heat is not lost and is used at the most effective time.

Requirements on heat networks in zones

The benefit to delivering heat networks is not yet well understood by communities. Heat Network Zoning is an opportunity to drive ambitions to deliver a significant increase in the amount of heat generated through networks and the numbers of current networks. While some members rightly raise concerns about being designated to a heat network without the sufficient commercial return to make it viable, we believe these issues can be addressed through the design for the scheme. Generally, there could be positive benefits for plants such as EfW and biomass within communities such as improved public perception and where existing support schemes may be ending, ensuring their continued generation.

We also have other members that deliver heat networks that feel the ambitions may not go far enough although with the proviso that positive community involvement is paramount.

41.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.

We agree that the zone coordinator will have sufficient information and support to make an informed decision, based on the proposals that

- the Central Authority will produce national guidance on the typical costs of connection or access to the heat sources set out above to provide heat network zone developers with acceptable or target prices to aim for and which heat source owners should accept.
- the Zone Coordinator will be directed in legislation to rely on this advice when using its powers to require heat sources to connect to heat networks within zones.
- Negotiations between heat source owners and a heat network developer should be based on whether there is a difference between the 'marginal heat price' (cost to a heat producer of producing the heat before profit) and the 'substitution price' or counterfactual price (price a district heat network operator can produce the same amount of heat by themselves with whatever technologies the heat network is using).
- Where the difference is positive and both the heat source owner and the heat network could financially gain from the sale of heat, the heat network can pay a price more than the cost of the heat source producing the heat but lower than the cost of the heat network producing the heat themselves.
- And when this value is zero or negative heat delivery cannot be required.
- The Central Authority will support Zone Coordinators to assess these values through the provision of technical expertise and standard national guidance documents.

However, this will still need to be balanced against the ability of designated heat sources being able to appeal decision where it is not commercially viable for them the join a network. Such an appeal may include the need to question and challenge the information that the zone allocation has been based on.

42. 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.**
B. **Standardised templates will set out how pricing should be presented to heat network customers within zones.**
C. **Zone Coordinators will be permitted, but not required, to set pricing conditions on the award of a zone to a developer.**

As previously mentioned, we do not represent members of the public or developers of residential and office buildings. Our particular interest would be with the heat sources although we do represent some members that may form part of the process (finance, consulting, legal etc).

On price — within the proposal, there is suggestion that zone authority could set a maximum price with other conditions. It is understood this is needed in part to ensure a fair and low cost has been achieved for customers. However, there is also a need to ensure a realistic return for developers, with the price charged reflecting a realistic heat source unit price. In particular, we note industry objections to the use of an air source heat pump counterfactual on the grounds that the complex range of costs involved in heat production for other heat sources may be overlooked when compared. This could lead to a significant undervaluation of the price that could undermine growth potential and make investment unattractive/unviable.

There is also the additional concern that Ofgem can have price regulation powers too, creating potential for multiple price setting bodies, who may not possess adequate information on the full costs of generating heat. This is a potential area of conflict and there would need to be a mechanism to ensure accurate cost representation with transparency over its calculation.

We are aware there may have been some missed opportunities where recoverable heat has not been utilised in heat networks due to the complexities of connecting, due to a lack of commercial certainty in heat offtake to make such investment viable. It's hoped that this process should alleviate these deterrents and encourage those heat sources to get onboard, however there are genuine concerns about being obligated for little or no return. If the process is fair and transparent more potential sources may be incentivised to join the heat network.

In turn, from a customer perspective, a good approach and positive experience will involve transparency of pricing and a standardised template for charging, such that price comparisons are possible.

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.

We agree that the heat source should be low carbon and therefore setting a limit which is consistent with the GHNF and other support schemes such as the Green Gas Support Scheme (GGSS) and Low Carbon Hydrogen Scheme (LCHS), is a good way to ensure a high consistent

standard. However, the current carbon gate limit for the GHNF is 100 CO2e/kWh and the proposed limits are 44 CO2e/kWh, 187 CO2e/kWh and 83 CO2e/kWh. The second option is significantly higher than current GHNF, so unless there is a reason to raise concerns about needing to increase these levels, such as balancing current emissions with expected future deployment of carbon capture technologies, then it may be logical to disregard this one.

However, given that the initial focus should be to open incorporation into zones for as many appropriate heat sources (particularly recoverable) as possible, it may not be advisable to create an overly restrictive barrier to heat sources joining, especially given the potential for further decarbonisation. As such, the limit should allow a trajectory in place that ensures existing connections are switched over to low carbon sources in line with the UK's Carbon Budget and other Government support mechanism

With this in mind, of the proposed options we favour an emission factor of 83 CO2e/kWh as the most sensible initial limit for emissions. This provides a strong direction of travel for the decarbonisation of heat networks, while still allowing for a transition period and not limiting the role of bioenergy in this transition.

It is important that there is a consistent definition in how emissions are calculated. We would encourage an approach that takes account of not just emissions at source but both direct and indirect emissions too. To ensure bioenergy technologies can also be included in heat network zoning, it should also take into account biogenic carbon as recognised by the International Energy Agency and IPCC in their greenhouse gas emissions inventory. As when bioenergy is done sustainably it is a low carbon heat source. There are also constant innovations in the biomass boiler sector to reduce emissions at source with technologies like electrostatic precipitators that lower particulate emission levels to levels consistent with those of gas boilers. There is also the growth of carbon capture and storage in the biomass sector too. So, overtime emissions limits could be reduced, as long as the sector is given sufficient time to adapt.

Finally, any regulations on particulate emissions limits should be in accord with those set out by the Environment Agency and permissions acquired through Environmental Permits as already takes places. This is the appropriate place for such regulation to be policed and maintained.

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?

It will be dependent on the emissions limit set which, if set as we have suggested in our previous answer, there should be no reason why the 2030 introduction would not be able to be complied with. However, a lower limit could unnecessarily restrict the ability of potential low carbon sources from connecting and decarbonising further.

Broadly speaking, if a limit is set at the start of a contract and time allowed as a buffer to enable the plant to be compliant, this should be possible as its part of the initial negotiations. What's not so clear is how this may affect incumbents (i.e., heat networks that are already in place before the zone designation) when using the word 'adapt'.

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

Providing there is a standard model, CO2e figures could be updated annually so, for instance, as CO2 emissions from electricity generation fall as predicted, then electric based heating systems will improve over time. This could be used for monitoring purposes, but changes should not be

enacted more frequently than every 5 years to give sufficient time to adapt. Most importantly, there should be transparency about future trajectories in reductions in emissions limits and networks should be given sufficient time to adapt, and there should be flexibility where contracts are already in place.

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

We are a trade association for renewable power and heat generators, rather than heat network operators, so not able to answer this directly.

47.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.

We are a trade association for renewable power and heat generators, rather than heat network operators, so not able to answer this directly.

Stage 1: Zone identification and refinement

As previously mentioned, it is expected that information on both zone designation and coordinator personnel will be published publicly and in enough time that any applications from possible heat sources not already assigned/ accounted for, could approach the coordinator for assessment and inclusion, prior to any developer bidding exercise and as part of the refinement process for new data. What's not yet clear is where there may be an area that could be a zone with parties that may want to be considered under a zone where not assigned, whether this would form part of the zoning process or whether the allocation for zoning would be limited. It would also be recommended that additional clarity is given with regards to the specifics of the modelling during the zoning methodology process and how different factors are being weighted.

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

We agree that more general refinements should be allowed to enable alignment with local priorities and strategies. It would make sense for relevant projects to be able to be captured within zoning where appropriate and cost-effective. For instance, if plans are in place for more innovative heat sources – such as geothermal – but planning has not been granted, they should look to be included within the refinement stage to make use of the resource, or build in an allowance into plans, to enable connection at a later date.

Also, the refinement process would be expected to involve discussions with the designated heat source so that the accuracy of the modelling can be properly attributed. The length of the operation for the plant could be dependent on existing contract and support mechanisms, some of which start to come to an end in 2027 as RO contracts start to end. A lack of current policy clarity for these sites might see plants make decisions in the next twelve months to consider decommissioning processes. In addition, the theoretical heat will be dependent on other factors. It will also be important to understand an indicative cost. This would avoid a later appeals process.

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

Agreed. The difficulty with setting a maximum and minimum size is that the ability to achieve the required low-cost heat production consistently is based on the available heat source(s) or conversely the density of the development it will serve. This could be on a geographical or heat demand basis. There may also be significant benefits and costs to consider. For example, this may be a campus size servicing a single university or hospital or alternatively could be a large development estate. Both of which will have different demands and costs basis.

The limiting criteria, therefore, would be factors such as maximum heat source deliverable temperature, achievable cost per property, availability of network capacity, numbers of potential heat sources, types of heat sources etc. There may also be significant benefit for a less populated area that has a suitable heat source, or feedstocks, located nearby, meaning a specific bioenergy solution may suit them. Therefore, we agree the De Minimus rules would allow for rural communities to benefit from either inclusion or at least modelling for heat network opportunities, and where smaller zones are located nearby and there is some benefit to it, that they can have the opportunity to aggregate.

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

The reasons provided above will be the basis for rules to aggregate. It will also depend on the ability to be a consistent heat source and low cost, as well as maintaining a secure provider. The risks to a smaller network can be the same as a larger one but the ability to resolve the issue for a large network may be greater. Ultimately, it will be dependent on the security of the heat source(s). This includes considering how long it will be able to achieve the heat due to, for example, the age of the plant, but also how it can continue to maintain the contracted costs with external factors over a long period.

This would be an area where the zone coordinator could be a good independent source of information to model the pros and cons which can be put to the members of the network for consideration. The developers or management company for the smaller networks would need to be provided with the ability to appeal if they are not in agreement. If there are clear reasons for this, such as non-performance, it will be necessary to reduce costs to end users or for there to be an ability to aggregate smaller legacy networks with heat sources that are either not low carbon or are coming up to the end of life.

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

We have no suggestions for additional information at this stage. However, we would expect that as part of a feedback and review approach, any changes to this can be reviewed at a later date.

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.

Information about innovative heat source data might be more difficult to get access to or accurately model.

Information on carbon emissions. Different organisations might calculate this in different ways. Therefore, it is important to ensure there is a standardised methodology for this. We would recommend this takes into account indirect and direct emissions, and biogenic as well as fossil

carbon. Other greenhouse gas emissions, aside from CO_2 could also be considered. This should be aligned with methodologies used in other government support mechanisms.

There may be inaccuracies of initial modelling estimations for temperature and capacity, so it is important that allowances are built into the system to ensure demand will be met by supply. Harsh penalties should not be given initially to companies if they fail to meet their estimates, as this could increase a project's assessment of policy risk and discourage companies' investment, ultimately stopping potential sources from applying.

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

5 years is an appropriate time period, providing that this impacts only future zones rather than zones already in the planning stages to ensure regulations are not constantly changing. It will be important that there is transparency in the review process and that there is clarity about when the new zoning methodology would apply from.

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

When reviewing the zoning methodology, it will be important to consider the 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.

Additionally, reviews should consider existing contract arrangements of heat sources. Some thermal generation could be reaching the end of their support, and as such, without clear policy direction may consider decommissioning before a heat network is established.

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

We agree that changes should not apply retroactively as these could be costly to implement. Providing heat networks are running off low-carbon heat sources they should not be required to make changes to existing plans, as infrastructure will have already been invested in. However, there should be flexibility so that zone coordinators can take advantages of changes that would positively benefit the zone e.g., the identification of a new heat source. Although there should also be consideration of temperatures and current infrastructure, as a heat network at 80 degrees won't be the same as a heat network running at 50-60 degrees.

Stage 2: Zone designation

56.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.

From the point of view of a heat source or developer, we assume from the consultation that prior to the designation, communication with the relevant parties would have taken place. This would mean 21 days should be sufficient although there should be provision to allow some flexibility to extend if requested.

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

We have no particular preference, only to suggest that the information needs to be communicated as widely as possible, especially given the short consultation period suggested in the previous question.

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

As previously mentioned, it is expected that information on both zone designation and coordinator personnel will be published publicly and in enough time that any applications from possible heat sources not already assigned/ accounted for, could approach the coordinator for assessment and inclusion, prior to any developer bidding exercise and as part of the refinement process for new data. What's not yet clear is where there may be an area that could be a zone with parties that may want to be considered under a zone where not assigned, whether this would form part of the zoning process or whether the allocation for zoning would be limited. It would also be recommended that additional clarity is given with regards to the specifics of the modelling during the zoning methodology process and how different factors are being weighted.

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

It seems appropriate to have a two-tier system to avoid over-complicating the consultation stage and drawing the process out.

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.

We largely agree with the proposed list of consultees but believe there should be two additions. Firstly, utilities should be added to Tier 1, so that not just electricity and gas distribution is considered but water and waste networks. Relevant trade associations should also be consulted as at least Tier 2 consultees.

Stage 3: Zone delivery

61.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.

We agree that requiring a process that could be cumbersome, create delays and deter developers should be avoided. Provided the process ultimately provides an appropriate level of regulation and transparency rather than one that is significantly diminished, then we would be supportive of the suggested approach.

62.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.

We have decided not to answer this question.

63.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.

We agree with the 9 principles as we believe they provide a good mechanism for strong and iterative zone delivery whilst also ensuring confidence throughout the chain. It is expected that 6 months for the procurement process should be sufficient provided the process doesn't have any pinch points such as license issuing.

64.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.

We agree that there needs to be a process which doesn't limit the ability for smaller developers to bid. Therefore, it's more likely to provide some diversity in bids where zones are split into delivery zones provided the aggregate option is available and where economically beneficial. It is also a mechanism to provide opportunity for more local developers to be involved which is encouraging and may help smaller developers to expand in the market.

65.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.

Where there can be a consistency in processes, establishing standardisation and frameworks is sensible. If this process can remove the burden on administration and costs from both sides this has to be advantageous.

66.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.

A framework to encourage opportunities where they may be small in scale, and supported by the local authority, would be advantageous to the overall growth of heat networks. Although, we note that it is not yet clear how this would impact the existing GHNF process.

67.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.

We support the flexibility to allow some options for incumbent networks not only to maintain their existing network rights, especially considering investment commitments but also requiring a move to increasing lower carbon intensive technologies and emissions. Where a network exists and provided the low carbon status of the network can be established, then it would be logical to offer an existing network priority to extend the network. The provision should be to ensure that the principles for evaluation are reviewed for the incumbent.

68.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.

We agree in principle, especially where existing agreements and investment has been made. Providing the principles are consistent as mentioned above.

69. 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' (see page 70).

We can see no reason to disagree with the proposed shortlist.

Stage 4: Zone Operation

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

There is an understanding that data is best provided in a consistent way and from a central point and that the methodology is a standardised and proportional approach. There should, however, be some flexibility where other technologies may have variance in data. The data initially required will be for the purposes of assessing viability for inclusion in the zone and this will involve provision of commercially sensitive information from the point of view of the heat sources. Therefore, commercial data should not made public, ensuring it is retained only for the initial zone designation review process or kept securely by the zone authority/coordinator for future reviews or when retained on a zone opportunity publication. For transparency, it will be important for heat network developers to ensure their information is provided as it will be required for ensuring performance and that they are not misusing their market position.

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

We agree with the process and find it useful to have the intended outcomes and framework clearly listed.

72.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?

The need for network developers to hold a license and hold sufficient rights within zones to fulfil their duties under the scheme is understood. The ability to have a check to ensure developers have a license before applying for the right to develop a zone is sensible as it will form part of a due diligence process. However, this will depend on the time taken and costs involved, especially where there may be multiple applicants for the same zone. It's not clear in the consultation, but the industry assumption is that it will be a license per zone as there may be a developer with interest in multiple zones. More clarity is needed.

The role of Ofgem in this capacity is recognised due to their role as the heat networks regulator and regulator of other schemes. However, we noted that members had expressed concern about their appointment due to experiencing poor delivery of the RHI in the past and particularly in this case delays which could affect the process. As such Ofgem in their appointment as the heat network regulator should be with an ability to ensure they resource activities appropriately, have clear strong KPIs for delivery and commit to work with industry to address issues as quickly as possible.

Stage 5: Zone Review

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.

We agree that there should be a process of zone review. It is important that the methodology can be changed at a later date and take on learnings from the process. The list of relevant changes seems appropriate so that heat networks can be updated to take advantage of local contexts. This should include when new heat sources are identified and when new technologies

are developed. It's important that any future breakthrough technologies and energy storage devices (for instance thermal energy storage) are not excluded from being connected to heat networks and have an opportunity to be included when available.

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

We agree that there should be the provision to revoke the zone where there are justified reasons. The checks and balances listed will be a good measure to establish a case to revoke and we also agree that on some occasions the central authority may need to be the deciding party.

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

We agree with the checks and balances listed and feel they would provide a sufficient level of criteria and review to ensure the decision is made as a last resort but ensuring all avenues have been explored and identified. The only possible concern is where there may be a plant identified as a heat source that has valid concerns about the designations, that there may be additional administration time and costs attributed to the process at the cost of the business. This needs to be factored in to ensure the process is fair and well supported.

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

As has been recently experienced, there may be issues where significant costs arise due to inflation and soaring energy costs that affect the pricing for heat sources. Although it's important that the costs are kept low for the end user, the suppliers of heat also need protections.

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

As previously mentioned, we are writing in response from the perspective of our members who are heat sources and possibly developers. It's understood that in order to ensure the successful roll out of the heat networks, there will need to be project parameters set to achieve this. Therefore, it's understandable there should be a provision to ensure timescales are met. However, given the problems experienced by our members across the association with supply chain delays, there may be factors that are beyond the control of the heat suppliers in terms of connections and allowances for such factors should be provided.

Also as mentioned previously, there may be a level of emissions for recoverable heat that it's not possible to reduce so if the process will be to continually reduce the emissions below an increasingly stricter threshold, there may be a point that the heat source, and by the same token the developer, will be unable to achieve this. Rather than penalise this should form part of the review process and possible revocation which is believed to be covered under the last resort provision.

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

In principle we agree with the use of penalties where there are unnecessary barriers to the process or required performance, and that these should apply fairly to companies of all sizes.

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

As stated above, in principle we agree with the use of penalties where there are unnecessary barriers to the process or required performance. However, in this instance the setting of penalties based on the size of the party may not reflect the total involvement. i.e. they may be a company with multiple sites and overall turnover large yet for the purposes of recoverable heat this may form a very low revenue potential from the plant connected. We therefore are uncomfortable with the penalty process for the connection of heat sources and to a certain degree the information notices and access to premises. We agree that in order to effectively kickstart the heat network process in the UK there needs to be a strong mechanism in place to ensure maximum impact and delivery. Although its useful to have a consistency with the ETS charges, this won't be a level playing field as some heat sources will have been identified for inclusion rather than nominating themselves.

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

For the reasons provided above, we have some concerns about how and when the penalties can be issued. Therefore, we are in agreement that a review and appeals process will be necessary to ensure the flexibilities are available where delays are due to genuine reasons rather than deliberate obstacles. There should be a mechanism to incentivise timely and accurate data and performance. However, the process itself while providing some flexibilities may be too cumbersome and put undue costs on both the zoning process and heat producers.