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# Response to the CMA Heat networks market study Update Paper

31 May 2018

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## Introduction

The Association for Decentralised Energy welcomes the opportunity to respond to the CMA's Update Paper for their market study on heat networks. The ADE is the UK's leading decentralised energy advocate, focused on creating a more cost effective, efficient and user-orientated energy system. The ADE has more than 100 members active across a range of technologies, and they include both the providers and the users of energy equipment and services. Our members have particular expertise in heat networks, combined heat and power, and demand side energy services, including demand response and storage.

Consumer trust and investor confidence are critical in creating a sustainable and dynamic market over the long term and crucial to allowing heat networks to deliver their anticipated role for a low carbon cost effective energy economy. The Association looks forward to continuing to input into the market study, working with the CMA to identify finer details of their proposed solutions and ensure that they will operate as effectively as possible.

## Consultation questions

### Assessment of the issues

#### **1. Do you have views on our approach to analysis and our findings regarding heat network outcomes, misaligned incentives in the supply chain and transparency?**

The analysis undertaken for the market study has been thoughtful and comprehensive. The Association values the depth of the analysis, particularly with regard to the CMA's obvious determination to understand the variety of operating models in the heat network market.

The ADE has some comments relating to the sample for analysis, which are important to ensure interpretation of the findings is accurate. Within the sample the average network size is small, at just 36 dwellings per network. This suggests only the smaller of the communal networks and no district networks, which perhaps places a strong focus on the very small end of the market. This is particularly pertinent in the context of the Government ambitions for strategic networks, likely to be larger and more 'district' schemes. The percentage of metered sites included in the sample is also likely to be unrepresentative of metering practices on new networks as metered sites made up only 25% of the sample. It is worth further consideration as to whether this effects the findings with regard to what was consistently included in bills (as metered sites are more likely to include a more detailed breakdown). However, the overall analysis and findings align with the ADE's understanding of the market.

The Association is encouraged by the findings of the study to date, in particular to have further confirmation of the value that heat networks can offer; and of the key elements of the market that work well. The update paper confirms the positive opportunities offered by networks as a solution that can offer the same levels of satisfaction as alternative heating sources, at a lower cost.

The ADE is eager to continue to engage with the CMA and with government to flesh out the solutions identified, so that the remedies suggested can effectively improve and optimise the market.

**2. Do you consider the individual household gas boiler price to be a reasonable benchmark for customers to be confident that their heat supply is value for money?**

Gas is a logical start-point for comparison as most homes in the UK are heated with gas. As identified in the update paper, gas may not be the heating alternative for many consumers. This is particularly important when considering pricing as prices can be set and varied based on their costs, which includes input energy such as power for a heat pump or heat from a waste to energy plant. As a result, in some situations, electric heating is likely to be a more suitable comparator. There may also be value in customers being able to make comparisons between heat networks and this is an area for further exploration.

The likely most suitable option involves using a standardised approach to developing a number of comparators, with heat network operators then responsible for indicating which is the most appropriate comparator (or comparators) for their network.

**3. Have we accurately captured the two broad categories of delivery models in the heat networks market (described in section 5) employed by housing associations and private property developers and their impact on customer outcomes? Do you have any views on potential different categories?**

The CMA has captured the main categories of delivery models in the market.

The ADE agrees that the categories identified are accurately labelled. However, these broad categories mask some finer detail as to what qualifies as each. For example, an ESCO model scheme is not always run by a private energy company – it could be a local authority or housing association which has formed their own company which runs their operations. Similarly private developers, as well as local authorities and housing associations, can operate within the landlord model. This is further complicated when overlaid with considerations of the effect of tenure arrangements on who is responsible for meeting which costs.

**Recommendations**

**Regulation of heat networks**

**4. Do you have views whether heat networks should be regulated? If you agree that they should be, please provide any views on which body might be best placed to act as the sector regulator?**

In line with the recommendations of the Heat Network Task Force in the *Shared Warmth* report published in January, the ADE is supportive of a regulatory framework. As noted by the CMA, heat networks are a natural monopoly (like other utilities such as gas, electricity, water), and the work of the industry-led Task Force concluded that, to protect consumers and to encourage equitable investment in the heat network market, regulation is necessary. Well-designed regulations can address both consumer and investment risks. It is vital to consider both as they collectively impact end customer bills.

It will be important to strike a balance between costly administration and ensuring compliance, and the ADE agrees that such a regulated framework will work most effectively with a regulator acting as a compliance back-stop. Further, the Association recommends that any future regulator utilise structures and expertise that already exists such as the Heat Trust, rather than seeking to start from scratch. Doing so will assist in preventing unnecessary additional cost and complexity.

There are a number of bodies that could take on the role of industry regulator. Ofgem has particular expertise, skills and attributes in areas around de-risking and returns, which are needed in the heat network market as they are found in the gas and power markets. Additionally, end customers do not necessarily consider heat to be different to gas or electric, simply considering it all as 'energy'. This suggests that Ofgem may be an appropriate body to act as a regulator for heat networks.

It is, however, worth noting that regulating heat networks will be very different to regulating the gas market – in many ways heat network regulation will be more analogous to food regulation, with many thousands of players of very varied size and business models. Additionally, unlike gas, the heat network market lacks an existing asset base, has a large number of networks (many of which are very small) and, as a growing market, needs flexibility to adapt to innovation and digital advances. As such, there will need to be a journey of understanding these differences.

We would recommend that Ofgem, if appointed the regulator for heat networks, establish a separate branch to manage regulation of heat and that external expertise is incorporated to cover those areas where it does not yet have significant expertise.

This journey will be necessary whoever ends up being appointed the regulator. The ADE is willing and eager to work with any potential future regulator to support growing their understanding of how heat networks, and the heat network market, operate.

## **5. If there is sector regulation, should it apply to all communal and district heating networks, all delivery models and existing as well as new networks?**

Regulation, if introduced, should apply to all networks. The Association agrees that regulation of the market is valuable, and believes that consistency in application is necessary to ensure that regulation is effective. A grace period for existing networks to transition would be important to ensure effective compliance.

The ADE believes that the CMA is right to identify that many solutions should initially be focused on new and new-build networks. In time, all networks should then be subject to the requirements.

Consideration should be given to the appropriate transition periods and support mechanisms to assist existing networks to meet any new regulations, and on how such regulations could apply to new schemes in existing buildings. This is especially true in older, 'legacy' networks and buildings in which often adaptations require expensive changes to infrastructure. The ADE would be happy to work with the CMA, government and any potential future regulator to identify pragmatic timelines for full implementation.

## **6. Do you have views on whether regulation of heat network prices to end customers is appropriate? If there were a form of price regulation, should it be a cap at a certain level, or a 'principles based' approach with self-reporting against permissible contract terms and a regulator to investigate complaints? What factors should determine the maximum level of prices?**

The Association believes that regulation of the market is valuable, and this includes regulation of prices. ‘Principles based’ regulation seems prudent, and is consistent with the direction of travel for regulation of electricity and gas. Such an approach also leaves flexibility to allow a growing market to innovate in its business models and offerings to customers, as well as allowing the regulation to have more agility to reflect the decarbonisation agenda as technology progresses.

Tackling such issues in a principles-based way also assists in accounting for the many different operating models of heat networks without being unduly punitive against networks that are higher cost to end customers due to being legitimately more expensive to operate. This approach also leaves flexibility to allow for grades of compliance for scale, meaning that smaller networks will be bound by minimum standards but will not be overburdened by demonstrating they operate to them.

In terms of maximum prices, comparators are useful – the ADE believes that having access to a range of comparators, including electric and other heat networks, would be useful. See question 2 above for further exploration of this.

**7. Do you consider that any rules and guidance on pricing and quality should apply to all heat networks or, for example, only to those with ESCOs? Do you consider that it would be proportionate to ban ‘capital contributions’?**

As above, the Association believes that regulation, rules and guidance should apply to all networks. Consistency across the market is important, and it is essential so that all customers feel equally protected.

As noted above, a grace period for existing networks to transition would seem appropriate, as would grades of compliance for scale.

With regard to capital contributions, the ADE agrees with the CMA’s assessment that banning them altogether would be disproportionate – particularly given there are such payments within the gas and electricity markets. However the Association also agrees that it is appropriate to put limitations on when and how they are used, and envisage this would be an area in which clear guidelines under principles based regulation would be valuable. Capital contributions may make an otherwise non-viable proposition viable. This could be important in achieving cost effective decarbonisation, as heat networks are well demonstrated to be able to decarbonise very cost effectively in other jurisdictions. In the event that capital contributions were not permitted, the long term impact on cost effectively achieving our energy goals could be undermined.

**8. Do you have views on whether heat network customers should have similar consumer protections to customers of regulated gas and electricity utilities?**

The ADE agrees with the principle that customers of heat networks should have similar protections to those on other utilities. This is what customers expect, and it seems an appropriate benchmark to draw on.

Indeed, this is what the standards mandated by Heat Trust are derived from. It would be prudent to leverage the significant work already done in this area; mandating Heat Trust standards for all heat networks.

**9. Do you have views on the recommendations described in section 7 that we are minded not to pursue (eg banning capital contributions from ESCOs to property developers, and mandatory re-tendering of heat network operating and billing contracts)??**

The Association is supportive of the CMA's analysis of options and agree with the remedies they have identified as the most appropriate.

#### **Planning and technical standards**

#### **10. Do you have views on how to improve technical standards, which cover the design and operation of heat networks, and make them enforceable? Could this be achieved in the absence of a regulatory regime requiring a licence to operate a heat network?**

The ADE believes that heat network technical standards can be enforceable in the absence of a licencing regime, fitting instead into an authorisation scheme overseen by a regulator that has the right to intervene to ensure compliance.

That is the intention that underpins the Heat Network Technical Compliance (HNTC) Scheme that is under development by the Association at present. The Technical Compliance scheme will draw upon CP1 principles to set standards and monitor compliance.

The efficacy of the scheme could be further strengthened if certification of heat networks was mandatory, rather than voluntary. The Association envisages this could be consistent with the requirements of an authorisation regime overseen by the regulator, whereby ongoing HNTC certification would be a requirement to which parties would automatically be subject to in order to be allowed to operate in the market (as would Heat Trust registration, for instance). This could be further supported by establishing joined-up reporting, monitoring and compliance arrangements between the scheme/s and the regulator. HNTC reporting requirements could also align to annual reporting requirements under the Heat (Metering and Billing) Regulations, to prevent duplication and ensure systems worked in tandem to support effective network operations.

Similarly, Building Regulations could require HNTC certification. Reinforcing existing regulations to reflect these compliance mechanisms seems prudent, however the Association is wary of relying on them solely to set and enforce standards as there are questions about how consistently they are applied.

With regard to the retrospective application of technical standards, this is undoubtedly complex. Some technical standards can, and should, be applied to all networks – particularly around operation and maintenance, and perhaps extending to reporting on performance. However we must also be sensitive to, and recognise the difficulties of, when a network fundamentally has not been built very efficiently and cannot be brought to standard without re-building. Further thought needs to be given to the right balance between ensuring all networks are operated to a minimum standard, and supporting existing networks that have fundamental build issues to operate as optimally as possible without requiring them to 'start from scratch' with the build.

With regard to Professional Indemnity Insurance (PII), the Association believes that concerns around PII can lead to oversizing and that consideration of this should be incorporated into any solution. The HNTC will enable PII to be linked to other metrics such as network efficiency rather than only to the constant supply of heat.

#### **11. How could local and development plans and their supplementary guidance be adjusted to take lifetime costs and customer prices into account? What would the impact of this be?**

The Association is supportive of the role of planning in encouraging well thought-out heat networks that deliver for their consumers. Accordingly, we also welcome the work and funding

of the Heat Network Delivery Unit and the significant efforts undertaken to date to ensure that local planning is supported.

The ADE is also conscious, however, of the resources and skills that are required to implement such activities. Key consideration for all regulation is both impact and adherence – as such, it is essential that any new regulation utilises the HMRC's principle of making adherence easy.

There needs to be recognition of the gaps in skills and expertise all along the heat network development process. In particular, more needs to be done to build the 'heat networks expertise' of developers so they can understand the opportunities, and unique challenges, of building heat networks.

**12. How should a heat network quality assurance scheme be established and embedded into the regulation of heat networks? Should such a scheme seek to accredit the commercial, financial and contractual aspects of a heat network as well as the technical?**

The Association envisages that a stand-alone technical quality assurance scheme – the HNTC – could fit consistently with the requirements of an authorisation regime overseen by the regulator, whereby ongoing HNTC certification would be a requirement to which parties would automatically be subject to in order to be allowed to operate in the market (as would Heat Trust registration, for instance). This could be further supported by establishing joined-up reporting, monitoring and compliance arrangements between the scheme/s and the regulator.

With regard to accrediting other aspects of the network such as the financial aspects, this is hugely complex. The Association would be pleased to engage in discussions to further this thinking, however believe that significant consideration is still needed to determine whether it is practicable. The different aspects of a scheme are like pieces of a puzzle; interlinked but also distinct and can also be considered separately. The HNTC will create liabilities that need to be reflected in contracts, for example, however if a singular compliance scheme seeks to address all aspects of a network at once it is likely to result in it being prescriptive (which will limit innovation) and burdensome to engage with. As such, the ADE considers that creating each piece of the puzzle and designing them to interlock (as is being done with the HNTC and the Heat Trust) has a greater chance of success.

**Transparency**

**13. Is further information required to improve consumer understanding of the significance of living in a home with a heat network? If so, what information would be useful?**

Heat Trust identifies appropriate levels of customer information, and the Association supports holding all networks to these standards. Information packs should be available to all customers, and to potential customers, so they understand the implications of living on a heat network.

Crucial to this being effective is improving the working relationship between estate agents, developers and heat network suppliers to ensure this information is understood and that it is shared with residents.

The Association anticipates that there would be value in a comprehensive communications campaign that engaged ordinary consumers, as well as those in targeted industries, to increase base understanding of heat networks – and encourage stakeholders to ask questions. Crucial to successful market growth and to end-customer outcomes is an overall increase in

the general public's understanding of what a heat network is, and what it means to live on one.

**14. Who should be responsible for ensuring that new leasehold agreements include a clear reference to the treatment of heat network assets connected to a leasehold property?**

This responsibility needs to sit with the property's landlord as they are the only one who is certain to engage contractually with the resident before they move in. A heat network operator will often not know about a new customer until after they have moved in.

**15. Should heat supply agreements or contracts which set out key performance indicators, such as guaranteed terms of service, be made compulsory?**

It is essential that all customers on heat networks are provided with clear terms and conditions of their heat supply. Heat Supply Agreements should be the preferred option for setting these out – however the Association is conscious that for some organisations it can be very challenging to set up such agreements. In such cases, a customer charter that brings together all the information in one place (in the same way a Heat Supply Agreement does) would be an appropriate alternative.

**16. How could EPCs be improved in relation to heat networks?**

Currently, EPCs do not accurately reflect the cost of living on a heat network and thus can lead to consumer dissatisfaction when the EPC is not aligned with their bills.

EPCs do not currently estimate repair and maintenance costs associated which are included in the customer's bill. Further, the assumed standing charge included for living on a network is the same as the assumed charge for if the property was connected to the gas grid and using a gas boiler which is not necessarily a good proxy and can mislead the consumer with regard to the actual standing charge they may be subject to.

Ideally, EPC calculation would be adapted to more accurately reflect the true costs associated with living on a heat network. In the absence of such a change, or in the interim period before it could be introduced, it would be appropriate to adapt EPCs to include an explanatory notice about what is and is not included, and that this may mean the cost of living on a network is not accurately reflected – thus at least making consumers aware that there are gaps in the information they are being provided.

Additionally, as identified in the update paper, SAP calculations need to be adapted to more accurately reflect actualities of network performance. The Association has been engaging with the Government as to how to effectively reflect network performance through SAP, and is eager to continue contributing as this work progresses.

**17. Should heat supply bills be improved? Is further information necessary? If so, what information would be helpful? and 18. Should there be specific requirements regarding the frequency of bills beyond that already required by the Heat Network (Metering and Billing) Regulations?**

The Association believes that Heat Trust standards should be mandatory, setting a firm minimum standard as to billing practices. The standards required by Heat Trust are comparable to those in the gas and electricity markets, and we recommend that networks take on these standards to demonstrate best practice (rather than changing the Heat Network (Metering and Billing) Regulations themselves, which are relatively new).

It is right to identify a focus on enforcing these rules. Heat Trust also has a role in enforcing these existing regulations, through its audit and compliance function – meaning that enforcement is embedded in the process.

**19. Should standard performance metrics for suppliers be produced – for example, in relation to planned and unplanned outages and heat temperatures? Should this information be published?**

As above, the Association believes that Heat Trust standards should be mandatory – this includes a number of standard performance metrics for suppliers.

With respect to publishing this information, the ADE supports the provision of this information to residents/customers of the network. Performance metrics should be clear to consumers, and they should have the information available to them to be able to determine whether those metrics have been met. It would be appropriate for networks to report back to residents on the performance of their specific network. For example there are a range of reasons for the chosen flow temperature of a heat network. Setting a standard UK wide benchmark would not be appropriate as it could undermine low carbon heat solutions or result in underheating in retrofitting of existing older buildings where efficiency measures may not be possible (e.g. listed building status). The HNTC is planning to set ranges for metrics but allow networks to select within such a range based on the local heat source, customer and building type.

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The Association hopes that these ideas will prove useful in formulating the CMA's further thoughts, and looks forward to our continued dialogue over the final phase of the market study.

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