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Heat networks market study Competition and Markets Authority 7th floor Victoria House 37 Southampton Row London WC1B 4AD

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# Vattenfall's input to CMA's heat networks market study

Dear CMA,

Please find attached a response to the CMA's heat networks market study update paper from Vattenfall.

Please let me know if you have any questions.

Best regards,

Lisa

Lisa Poole Director Public and Regulatory Affairs UK Vattenfall









- 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?
- In principle, we agree with the observed findings, but would caution against using older heat networks, and their contracts, to establish views on future heat networks. Newer networks will be different both technically and commercially. In particular, we will see heat as a service – rather than as a commodity - and as a result consumers will have higher customer care expectations than before.
  - 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?
- Yes, we see the gas boiler as a reasonable counter factual for today. But as the heat networks move towards lower carbon heat generation and better air quality emissions compared to gas boilers, the comparison will become less valid. Further consideration in the quality of service between gas boilers and heat networks should be accounted for.
  - 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 categories described in your report are broadly correct analysis for the market today. Again, due caution would be needed to ensure that assumptions made based on delivery models of today while using old technology (at times poorly installed) are valid for future low carbon heat networks of the future.
  - 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.
- Yes, Vattenfall feel that heat networks should be regulated. Vattenfall operates regulated
  heat networks across Europe and feel that, as a natural monopoly, heat networks need to be
  regulated. Heat networks in the UK are a nascent industry and there will therefore be
  nuances and challenges of expansion across the UK.
- The regulator should have a well-informed view on the environment (technical and economic) that enables heat network growth, and standardisation within the sector. We feel that BEIS would be the natural interim regulatory body given its greater engagement with the heat sector to date but, in the long-term, could hand over to OFGEM once the market is



matured and sufficient resource has been secured.

- Furthermore, with regulation, there is a need to ensure that the costs of such are countered
  by policies which enable commercial investment. Such policies should focus on de-risking
  investment, which will lower the cost of capital and allow for large-scale investment in
  strategic infrastructure. This too will ultimately benefit the customer in the form of a lower
  price of heat.
  - 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?
- Yes. All customers on HNs should be covered by the benefits of regulation if they are on a HN. There could be a grace period to all for existing networks to improve. Due caution should be heeded to ensure that no loop-holes exist.
  - 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 principles based approach seems most appropriate. Vattenfall believes that all pricing should be transparent, in particular looking at what the fixed and variable components of the cost elements are and how these link to pricing. This will become increasingly important as Vattenfall sees large shift in technology over the coming years for heating.
  - 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'?
- Again, we feel that all loop-holes should be avoided, and the rules and guidance should apply across the board.
- Due caution would be needed concerning banning of capital contributions. Particular
  consideration should be given to the overall outcome customer protection. Vattenfall feel
  that this might be more appropriately addressed via pricing control. New heat networks will
  be more capital intensive with upfront costs capital contributions from the ESCo could
  ensure that the best party to invest smartly and design the networks have vested interest in
  optimising for the whole life costs of the network, thus reducing overall costs of the end
  consumer.



- 8. Do you have views on whether heat network customers should have similar consumer protections to customers of regulated gas and electricity utilities?
- Yes, heat network customers should have at the very least similar protections to regulated gas and electricity. Vattenfall would suggest that even higher standards should be expected as it is a service market with no choice of supplier rather than a commodity market.
  - 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)?
- No comment
  - 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?
    - a. What is the role of the CIBSE ADE CP1 Code of Practice in this process?
    - b. Do you have views on how these proposals could be embedded in the planning authorisation process?
    - c. For potential heat network connections affected by Building Regulations and / or planning, how could appropriate technical standards could be embedded these processes at local, regional and national levels?
    - d. Could operating technical standards be applied retrospectively to existing heat networks?
    - e. What is the impact of the current approach to professional indemnity insurance for heat network design and build on the recommendations of design engineers
- The technical standards for quite a number of heat networks in the UK are poor. Vattenfall welcomes any initiatives that will improve this situation. Vattenfall suggest a two pronged approach to cover both the installation and operation could be considered. Firstly, heat networks need to be designed and built and operated by engineers who have sufficient knowledge and experience with this technology. This could be addressed by a certification of installers in a similar manner to a high voltage network, where only qualified personnel have authority to work on the network. This could be also done for secondary networks within buildings. There is a need to ensure that property developers think more like the developer or a power network when working on heat networks. Secondly, a licence to operate the heat



network would ensure standards are maintained for the ESCos.

- The CIBSE ADE CP1 is a good starting point, but it needs to be significantly more material covering the technical detail. In particular for the installation, commissioning and design of secondary networks.
- Retrospective application could be applied to existing heat networks, but would most likely need a grace period, and funding to bring these network up to standard.
- The emphasis for design and build of heat networks needs to be on the whole life costs of the network. Incentives (and penalties) need to focus more on the asset performance.
  - 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?
- No comment
  - 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?
- Yes, and this is why Vattenfall feel that BEIS would be a good fit given their commercial, technical, and economic experience of heat networks.
  - 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?
- Yes. Greater awareness of heat networks is needed in the UK.
  - 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?
- Ultimately, it is the property owner who is responsible for this.



- 15. Should heat supply agreements or contracts which set out key performance indicators, such as guaranteed terms of service, be made compulsory?
- Yes, and using a principles based approached similar to the price regulation
  - 16. How could EPCs be improved in relation to heat networks?
- EPCs are not fit for purpose. They are overly generic, and provide little value to either owner or occupier. In their current form, they are unusable for heat networks and provide more confusion than clarity. Either a whole revamp of the process would be needed to ensure that the quality and rigour is enhanced to a suitable standard or consideration should be given to abandoning them.
  - 17. Should heat supply bills be improved? Is further information necessary? If so, what information would be helpful?
- Yes. More information on investment and maintenance costs to ensure a clear and transparent view on the fixed and variable costs of running a network.
  - 18. Should there be specific requirements regarding the frequency of bills beyond that already required by the Heat Network (Metering and Billing) Regulations?
- No, we don't consider this necessary.
  - 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?
- Yes, but due caution should be heeded when choosing the KPIs and ensure that we are measuring what counts towards customer protection and satisfaction.