Response by the Energy Systems Catapult to CMA Heat Networks Market Study Update Paper (May 2018)

Introduction

1. This response is submitted on behalf of the Energy Systems Catapult (ESC). The ESC supports innovators in creating opportunities from the transition to a clean, intelligent energy system. We are part of a network of world-leading centres set up by the government to transform the UK's capability for innovation in specific sectors and to help drive future economic growth.

2. By taking an independent, whole energy systems view, we work with stakeholders across the energy sector (consumers, industry, academia and government) to identify innovation priorities, gaps in the market and overcome barriers to accelerating the decarbonisation of the energy system at least cost. In doing so, we seek to open up routes to market for innovators, as well as supporting them to understand how their products, services and value propositions fit into the transforming energy system.

3. The ESC is working with the UK government and local authorities to deliver the Smart Systems and Heat (SSH) programme, determining the most effective means of decarbonising the UK's 27 million homes and contributing to the target of an 80% reduction in the UK's Greenhouse Gas emissions by 2050. A key element of this work is the development of Local Area Energy Strategies using the EnergyPath Networks modelling tool, jointly developed by the ETI and Baringa. These local area energy strategies seek to determine the most appropriate forms of heating in specific areas.

Comments

4. **We welcome CMA's recommendation for the creation of a statutory framework underpinning regulation of heat networks with formal powers for a sectoral regulator**. Given the importance of heat networks for achieving long-term decarbonisation targets and their predicted growth, the need to set industry standards and protect the interests of consumers on those networks is likely to grow. We take the view that an independent sectoral regulator with sufficient experience and expertise, such as Ofgem, is likely to be best placed create, monitor and enforce heat-related regulation on a continuous basis. This would also allow multi-vector coordination of incentives across electricity, gas, and heat, and a more coordinated approach to achieving decarbonisation targets.

5. **An appropriate regulatory framework should provide adequate level of consumer protection against monopoly power, while simultaneously allowing sufficient space for innovation and new business model development to drive long-run efficiency**. The introduction of mandatory rules and criteria for price and quality linked to long-term concession agreements seems like an appropriate mechanism to address current concerns

about monopoly supply under a 'for-profit' ESCO model. However, we think that alternative regulatory frameworks enabling the possibility for opening elements of heat networks for competitive service provision should be further explored, especially for district heating. Such a framework has the potential to set incentives for service provision, centred on uncovering and addressing customer needs, which based on ESC's evidence from the Smart Systems and Heat (SSH) programme can vary significantly between individuals and households.

6. We agree that if network providers hold a monopoly supplier position, they should be required to follow **regulation-based rules or guidance regarding pricing and service quality**, similar to network pricing in gas and electricity. We note that a pure cost-based approach to pricing, could limit incentives to minimize investment costs or improve network efficiency, potentially resulting in higher consumer prices. Depending on how they are defined, "principle-based" rules or guidance on permissible contractual terms could allow more flexibility for developers to design networks suited for local conditions.

7. We suggest that the study gives further consideration to the need for a governance framework that fosters **appropriate representation of consumers when it comes to strategic choices regarding local heat supply infrastructure**. This is especially relevant for areas where there is potential for introducing heat networks to serve the existing housing stock, where community support may be needed to lower demand risk and unlock investment.

8. If adopted as an approach, **setting pricing benchmarks with reference to alternative fuels should be carefully evaluated**, since unpriced externalities in related markets (e.g. lower VAT on domestic gas) might provide an unreliable pricing comparison points, and not account for the carbon and environmental benefits associated with heat networks.