

Appendix 6 – Regulation and Financing

Heat Metering Regulation

1. The Heat Networks (Metering and Billing) Regulations 2014 stipulate that heat suppliers must:
 - Notify government of heat networks that they operate
 - Install block level heat meters at the entry to each multi-dwelling building
 - Install dwelling level heat meters to all newly built homes and those receiving major refurbishment
 - Install dwelling level heat meters in all other properties (including existing) where it is seen to be cost effective to do so as determined by a certain calculation tool
 - Where dwelling level meters have been installed, to bill customers according to consumption
2. When the regulations first appeared in 2014 the calculation tool was found to be not fit for purpose and was withdrawn. The requirement to install dwelling level heat meters to existing dwellings has essentially been on hold since 2015.
3. In November 2020, the Heat Network (Metering and Billing) (Amendment) Regulations 2020 came into force along with new cost-effectiveness calculations. The regulations require heat suppliers such as the Council to determine which of its buildings fall within the scope of the regulations and complete cost-effectiveness tests for dwelling level meters within these properties within one year (by 27th November 2021). Heat suppliers must then install meters in all required properties by 1st September 2022.
4. The ramifications of the updated regulations are still to be determined though work has begun in trialling the new cost-effectiveness tool. Due to the size of the stock that needs assessing and the fact that many site visits will be required to determine installation costs and viability, the Council may require some external support in completing the assessments.
5. At this stage it is very difficult to predict the number of dwelling level heat meters that will need to be installed and thus it is difficult to forecast the budget that should be set aside. Meters cannot be installed if temperature control devices (normally TRVs as a minimum) are not installed and this can be a further cost, along with any meter data collection systems that might be required. £1,000 is a likely maximum figure per property so if all 17,000 district heated properties required dwelling level heat meters, a £17m investment would be needed with the majority of cost falling in 2022/23. This is considered highly unlikely after our initial review of the new cost-effectiveness tool. It is considered likely at this stage that less than half of the Council's district heating systems will be obliged to install heat meters. A definitive list of estates and properties should be available by November 2021 and a budget request for 2022/23 can be prepared at that stage.
6. Where heat meters are installed, the Council will have an opportunity to set up property level outage data rather than block level. Currently it is not possible for the Council to

determine accurately if heating has failed within an individual property. This could provide operational benefits both to the Council but also to residents and could be used as a basis, going forward, for the calculation of more accurate compensation payments.

7. In accordance with feedback from the Residents Working Group, the wider resident community, and recent experience from our newly built homes, when billing residents on a metered basis the intention should be to deliver as simple a billing system as possible. This should be along the lines of encouraging energy efficient behaviour while also protecting vulnerable residents from the risk of fuel poverty. Charging mechanisms and tariff structures will be discussed in detail in a future paper prior to wider roll-out of heat meters to existing properties.
8. Some of the possible unintended consequences of installing heat meters include under heating, reduction in ventilation (leading to poor indoor air quality, condensation and mould) and unaffordability for high users. A further possible impact is that separate charging for heat (as opposed to the provision of heated accommodation in rental situation, or simple pass through of costs with home owners), requires VAT to be levied at a rate of 5%.
9. The Council started charging its first residents for heat on a metered basis in January 2021. The first few weeks of operation were not without difficulty mainly due to communication failures between the Council, its metering and billing contractor and residents. This situation is being monitored closely to ensure lessons are learnt.
10. In terms of the requirement to install block level heat meters the Council, along with many other councils, is currently not fully compliant. Wherever plant room or underground mains replacements are taking place, block level meters are being installed, but no whole-stock retrofit programme has been carried out to date.

Heat Networks Market Regulation

11. The Competition and Markets Authority (CMA) published a market study in 2017 which recommended that Ofgem, the gas and electricity regulator, should be given powers to regulate domestic heat networks. And in early 2020 the government ran a consultation into the extent and structure of the proposed regulatory framework. In this consultation, a regulatory framework is proposed that would give Ofgem oversight and enforcement powers across quality of service, provision of information and pricing arrangements for all domestic heat network consumers. This would be funded through fees scaled according to the regulated party's size. The consultation sets out:
 - measures to increase levels of investment in the sector, such as provision of market information and support for strengthening local approaches that will help generate additional demand certainty on projects
 - policy options for establishing a market framework to deliver consumer protections, equivalent to those offered to gas and electricity customers, as the market expands
 - proposals relating to the choice of regulator, the regulatory approach, enforcement

- powers and step-in arrangements
 - proposals for protecting consumers including on transparency, pricing and quality of service standards
 - proposals for developing technical standards and certification and accreditation processes to improve the quality, cost and reliability of heat networks
 - proposals for giving heat networks equivalent rights and powers (such as undertaker or statutory access rights) compared with other utilities
 - proposals to drive decarbonisation of heat networks and use of waste-heat sources
12. One area of particular interest is price benchmarking. The consultation documents recognise that different networks will inevitably operate within very different cost frameworks – for example network size, type of heating fuel and age of connected buildings will all affect how much it costs to provide heat to residents. However, in order to protect residents from over-charging it is necessary to have transparency and price benchmarks. It is therefore proposed that the regulator should have powers to mandate and enforce suppliers to publicly disclose their fixed charges, tariffs and unit rates and provide clear explanations about how prices are set. It is also proposed that the regulator will work with the industry to design a system for reporting, monitoring and benchmarking prices. Proposals also include the setting of cost allocation rules on unmetered schemes so the Council's charging systems could be affected across the board.
13. Until the government publishes a response to the consultation, and provides clarity on the final scope and structure of the regulatory framework, it is not possible to ascertain the impacts on the Council's heat networks. Some changes are inevitable, however, and the Council must keep fully abreast of developments to ensure that it is ready and able to comply with new regulation.

Financing Heat Network Investments

Private vs public investment models

14. With a very significant investment need, previously estimated at £350m, the Council has explored whether it would be beneficial to partner with private sector heat network operators at some or all of our estates, in order to leverage private investment. A number of operating models exist which range from fully private on the one hand to fully public on the other.
15. The Council worked with a small number of private companies to develop possible investment models on example estates to establish market appetite and financial viability for the Council and its residents.
16. The investigations showed that unless the Council permitted an ESCO to substantially increase energy costs for residents it would not be able to fund many of the required elements of investment. Certain investment needs with very quick paybacks would be

possible, but most elements (e.g. heat pumps, HIUs, heat meters, radiators) could not be funded by an ESCO. If these works needed to be done, the ESCO would require the Council to contribute the majority of the required capital which undermines the reason for using an ESCO in the first place.

17. A separate line of investigation has been the pursuit of cost comparisons between publicly and privately operated networks. There is very little published research on heat prices charged by either the public or private sectors, but discussions with a range of industry stakeholders indicated that ESCOs tend to charge 8-9 p/kWh while local authorities and housing associations tend to charge 5-6 p/kWh. Standing charges of 40-60 pence per day are typical across both public and private schemes, though some private schemes can be much higher. These costs do not include any contributions towards sinking funds or operation and maintenance costs. From a purely financial perspective it is difficult to make the case for pursuing the ESCO route.
18. Residents' views were sought on the concept of private sector ESCO schemes during the Residents Working Group meetings. Some members of the group were open to the idea, if it was necessary to boost investment. Others expressed concern that such contracts are often expensive to set up from a legal perspective, and could leave residents with less recourse in the event that things go wrong. Residents liked the fact that if normal complaint reporting processes failed to get an adequate response, they could contact their local councillor who would take it up on their behalf.

Homeowner charging models

19. One of the key issues raised by leaseholders and freeholders connected to the Council's heat networks, is the cost of heating related service charges. This can be particularly difficult when expensive capital works result in large bills.
20. Some heat network operators utilise sinking funds which residents pay into periodically to build up financial reserves which can then be used to fund major works when they are needed. The recent report on District Heating by the Housing Scrutiny Commission recommended that the Council look into the viability of setting up of a sinking fund in Southwark.
21. After an internal review a number of obstacles were identified including:
 - Current leases do not provide for collecting money into a sinking fund which means that its operation would either need to be on a voluntary basis, or we would need to make changes to leases (which would be very difficult).
 - The HRA would have to contribute to a sinking fund as well on behalf of tenants (that money would not therefore be available for capital projects in the short term)
 - When the council previously trialled a sinking fund, it ended up giving money back to leaseholders because it wasn't spent
22. The homeownership charging team has pointed out that currently there are flexible payment options already available to help with large capital charges:
 - Monthly payments – capital costs can be spread interest free over 12 to 48 months

depending on the charge

- A service charge loan – for up to 25 years secured against the property
- Equity share – the council taking ownership of a percentage of the property value in lieu of the capital payment

23. A new option of the Council amortising the capital cost of the works over a period of time was also discussed. This approach could be structured so that leaseholders only become liable for the charges progressively as the council incurs the cost internally. To achieve this, certain capital investments could be ring-fenced within a wholly owned investment company, which would charge the Council annually for the use of the assets for a fixed duration (like an internal hire-purchase agreement). Since the Council would itself spread the cost of the assets over a period of time, homeownership charges would also be spread out thus avoiding high one off bills. This approach would need very careful legal and financial consideration to see if it is viable. The Council is currently seeking specialist legal advice.