

<b>Item No.</b>	<b>Classification:</b> Open	<b>Date:</b> 22 July 2022	<b>Decision Taker:</b> Cabinet Member for Council Homes and Homelessness
<b>Report title:</b>		Draft Heat Metering Policy	
<b>Ward(s) or groups affected:</b>		All	
<b>Cabinet Member:</b>		Strategic Director of Housing and Modernisation	

## RECOMMENDATIONS

### That the Individual Decision Maker:

1. Approves the Draft Heat Metering Policy (Appendix 1) for consultation with residents.

## BACKGROUND INFORMATION

2. The council has over 17,000 properties connected to heat networks, supplying both heating and hot water. Most of these properties do not have individual heat meters. In these properties tenants pay for their heat as a fixed weekly sum alongside their rent. Homeowners pay a share of heating costs within their estate.

### Heat Networks (Metering and Billing) Regulations

3. The Heat Network (Metering & Billing) Regulations were introduced in 2014 with amendments made in December 2015 and November 2020. Since 2015 it has been mandatory for heat suppliers, such as the council, to notify the Department for Business, Energy and Industrial Strategy (BEIS) of all communal and district heating systems that they operate.
4. In November 2020 it became necessary for heat suppliers to determine whether it is financially viable to install individual heat meters within their communally heated properties, using the government approved 'Cost Effectiveness Tests'. These tests essentially appraise the costs and savings associated with installing and using heat meters over a 10 year period.
5. The council recently completed its cost-effectiveness tests and associated government notification. Six of our heat networks were found to be cost effective for heat meter installations at this time, comprising just under 1,200 individual heat meters within our residents' homes. The regulations stipulate that cost-effective installations must be completed by September 2022.
6. Once individual heat meters have been installed, the regulations require that residents are billed according to consumption. There are a variety of ways of carrying out the required billing and deciding upon the way we will do this is the

subject of this paper.

## KEY ISSUES FOR CONSIDERATION

### Benefits

7. Installing individual property heat meters will not only allow the council to monitor properties' heat demands and bill residents in a compliant way, but will also provide essential data to help us improve our networks, our service and tailor future compensation payments.
8. Individual heat billing allows residents to understand and manage their usage which has been proven to reduce energy consumption with associated cost and carbon savings.

### Unintended consequences

9. Requiring residents to pay for their individual consumption, rather than a flat rate, could result in some high heat users having to pay more. There may be a temptation on the part of residents to use less heat than they should to keep their property adequately warm and comfortable, in order to save money. One of the goals of the regulations is to encourage sensible and efficient use of heat, but if heat consumption falls too far it could lead to cold homes, damp and mould, and physical and mental health impacts.

### Resident payment options – pre-payment vs credit billing

10. Pre-payment systems require residents to keep their balance above zero in order for heat and hot water to stay on. Credit billing allows residents to use heat and hot water when desired and arrange payment separately. The pros and cons of each billing approach are outlined in the table.

	Pros	Cons
Pre-payment	<ul style="list-style-type: none"> <li>▪ Minimise council debt risk</li> <li>▪ Protects residents from debt</li> </ul>	<ul style="list-style-type: none"> <li>▪ More technology</li> <li>▪ Higher capital &amp; operating costs</li> <li>▪ No bill smoothing</li> <li>▪ People could be cut off through confusion, technology error, or struggling to pay at certain times</li> </ul>
Credit billing	<ul style="list-style-type: none"> <li>▪ Lower capital &amp; operating costs</li> <li>▪ Prevents cut-offs</li> <li>▪ Allows payments to be smoothed across the year</li> <li>▪ Could be administered in-house if desired</li> </ul>	<ul style="list-style-type: none"> <li>▪ Chasing debt</li> <li>▪ Bad debt</li> </ul>

11. The council's experience of operating a small number of pre-payment systems within new developments has mostly been positive but the additional complexity of a pre-payment approach did cause some implementation problems and has led

to some ongoing cases of very low / no heat consumption.

12. The council's intention is to primarily pursue credit billing in retrofit situations. Where pre-payment systems are already operational in new developments, there is a cost associated with changing the infrastructure to allow in-house credit billing and thus this may not be pursued until the meters need replacing anyway (meters have an approximate life expectancy of 10-12 years). An external credit billing approach could be implemented within a shorter timeframe but is likely to lead to higher levels of debt and bad debt.

**Resident tariff options – borough-wide vs estate-specific tariffs**

13. Home-owners without heat meters currently always pay a share of the actual cost of running their estate's heating system. After installing heat meters, an estate specific tariff will need to be calculated but thereafter costs allocated to home-owners will not be based upon number of bedrooms, but on heat consumption.
14. Tenants without heat meters currently pay a flat weekly sum with their rent depending on the size of their property, but regardless of which estate they live on. This borough-wide approach has been followed historically so that wherever a tenant moves within the borough, they will pay the same for heat and hot water.
15. After installing meters, tenants will need to be billed according to consumption, but the regulations do not stipulate that tariffs need to be estate specific. The table below outlines the pros and cons of borough-wide tariffs vs estate-specific tariffs for tenants.

	<b>Pros</b>	<b>Cons</b>
Borough-wide	<ul style="list-style-type: none"> <li>▪ Doesn't penalise tenants served by inefficient systems</li> <li>▪ Simpler tenant consultation helping people to understand what they will pay</li> <li>▪ Arguably 'fairer' as tenants do not choose their heating system</li> </ul>	<ul style="list-style-type: none"> <li>▪ Penalises tenants on more efficient systems</li> <li>▪ 'Hides' inefficiency</li> <li>▪ Means tenants and home-owners could have very different tariffs on one estate</li> </ul>
Estate-specific	<ul style="list-style-type: none"> <li>▪ Highlights inefficiency to tenants</li> </ul>	<ul style="list-style-type: none"> <li>▪ Penalises tenants living with inefficient systems not of their choosing</li> </ul>

16. In light of the above, it is the council's intention to mainly pursue a borough-wide tariff for tenants. There may be exceptions to this principle either due to existing arrangements with third parties, or due to the nature of the particular buildings or residents.

## Resident tariff options – the degree of variability

17. The regulations stipulate that heat customers must be billed according to metered consumption but that does not mean that all network operating costs must therefore be directly proportional to consumption. The industry standard approach, and the approach applied within Southwark in our new developments that already have heat meters, is to calculate a daily standing charge to cover the fixed costs and a pence per kWh charge for heat consumed. The table below describes and compares four possible tariff structures. The first option (fixed rate) is not deemed to comply with the regulations and is included for comparison only.

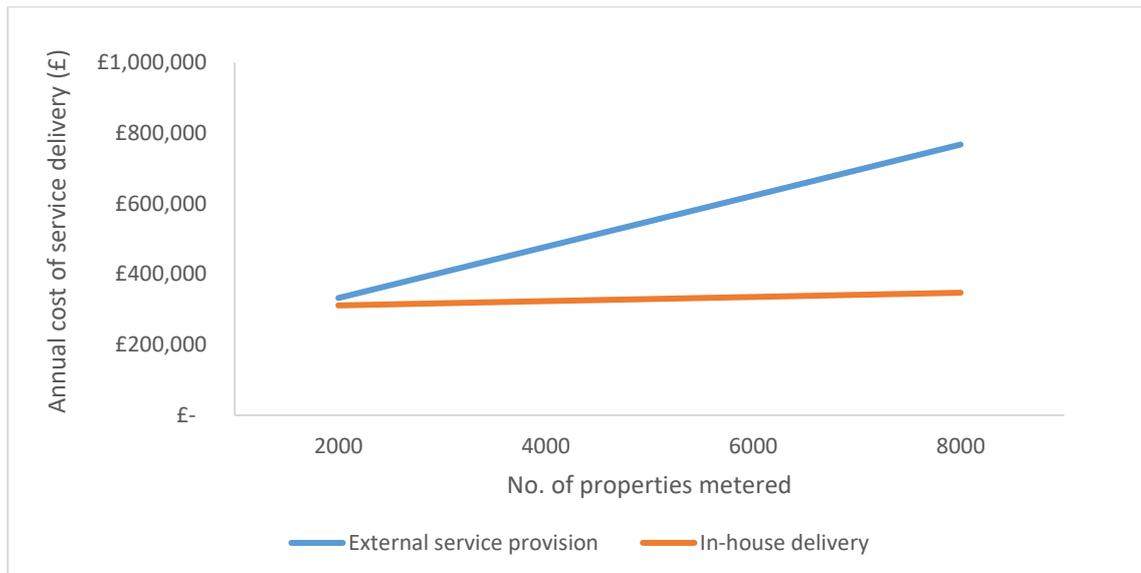
	<b>Fixed rate</b>	<b>“Mobile phone” equivalent</b>	<b>Standing charge + variable</b>	<b>100% Variable</b>
<b>Standing charge covers</b>	100% fixed cost 100% variable	100% of fixed costs + a portion (e.g. 50%) of variable costs to cover a baseload of heat usage	100% fixed cost 0% variable	0% fixed 0% variable
<b>Variable charge covers</b>	0% fixed 0% variable	0% fixed 50% variable?	0% fixed costs 100% variable	100% fixed cost 100% variable
<b>Pros</b>	Very simple.  People don't worry about consumption	Encourages people to use at least some heat. Still encourages efficient behaviour.	Encourages efficient behaviour.  Industry standard.  Simple to calculate and administer.	Encourages efficient behaviour.  Benefits very low users / people who are sometimes away.
<b>Cons</b>	Does not encourage efficient behaviour.  Not compliant.	More difficult to administer. Doesn't allow full inter-seasonal smoothing.  Could be seen as inequitable by very low users.	Could discourage heat use altogether in some cases.	Could discourage heat use altogether in some cases.  Penalises high users.

18. As fixed rate system is not compliant once heat meters have been installed. A purely variable system is deemed to introduce too much risk for high users, some of whom may be elderly, have mobility issues, or just live in poorly insulated properties that need a lot of heat.

19. The “mobile phone” type contract where a customer pays a pre-determined sum to cover all the fixed charges and an initial quantity of heat, and then pays extra for further heat used certainly has some advantages in that it encourages people to use at least some heat (because they have already paid for it through their standing charge). This could prevent against problem cases of people turning the heat off altogether and living in cold properties to save money. However, this type of tariff would be the most difficult to administer, wouldn't allow full inter-seasonal smoothing of costs and may be perceived negatively by very low users i.e. forcing them to pay for heat they don't want.
20. In light of the above, it is proposed to adopt a tariff setting methodology that includes fixed costs within a daily standing charge and variable costs within a variable p/kWh charge. The full proposed methodology for tariff setting has been laid out in Appendix 2.

**Billing service – in-house vs external provider**

21. Our new build experience to date has been with a range of external partners. With low numbers of individual heat meters requiring billing, this is the obvious route but as numbers start to increase, the case builds for delivering the service internally. At present the council has 237 properties being metered by external parties. Over the coming two years, however, approximately 4,000 more meters will be installed (roughly 50:50 in retrofit and new build situations) and even more again as time progresses. Modelling undertaken indicates that at these levels it is significantly cheaper to deliver services in-house, and this position is supported by other London authorities who have gone down this route. The graph below shows an estimated cost base for delivering metering and billing externally and in-house for a varying number of properties.



22. As well as the obvious cost advantage of delivering the service internally, this would also provide local employment opportunities while giving the Council the

most direct access to meter data allowing us to explore opportunities for efficiency improvements, outage tracking and tailored compensation payments. Furthermore, in the cases of externally run services, this has led to confusion over who residents should contact when they have a query or a problem – the council or the billing agent. This potential source of confusion is removed in the case of internal delivery.

23. Using an external service provider does hold certain advantages as well such as immediate access to well-developed systems, and the option to choose a pre-payment option (not generally deliverable in-house, though this route is not currently being pursued anyway for the reasons outlined above).
24. On balance it is felt the in-house delivery option offers the most advantages and it is proposed that this route be pursued.

### **Policy implications**

25. The council has not got an existing heat metering policy so the current proposed policy does not contradict any existing policy. It is written with the recently adopted Heat Networks Strategy in mind, having been developed alongside this.
26. A manifesto pledge commits the council to becoming carbon neutral by 2050 and a motion passed by cabinet in April 2019 commits the council to achieving carbon neutrality by 2030 if possible. The roll-out of heat metering is expected to support that ambition by directly leading to a reduction in energy wastage and carbon emissions.
27. In 2021, council updated its compensation policy. The roll-out of heat meters in no way undermines that policy but could give the opportunity in the future to develop it further so that compensation payments are tailored to individual properties based upon far more granular outage data.
28. Heat market regulation has been recommended to government and is likely to come into force in the coming years. The roll-out of heat meters and billing in the manner proposed will help us to manage our networks better and be in a better place for the upcoming market regulation.

### **Community, equalities (including socio-economic) and health impacts**

#### **Community impact statement**

29. More than 17,000 residents rely on the council's district heating systems for their everyday heating and hot water needs. The installation of heat meters is a legal requirement where they are found to be cost effective. Consumption based billing is then a follow-on requirement where meters are installed.
30. The installation of heat meters may cause some short-term inconvenience due to the need to isolate pipework while the meters are installed. Due consideration will

be given to residents with specific needs both during works and after completion. Overall, residents and communities are expected to benefit in the longer term with a better service and lower bills on average, though some consumers may face higher bills.

### **Equalities (including socio-economic) impact statement**

31. The Public Sector Equality Duty requires public bodies to consider all individuals when carrying out their day to day work, in shaping policy, in delivering services and in relation to their own employees. It requires public bodies to have due regard to the need to eliminate discrimination, advance equality of opportunity and foster good relations between different people when carrying out their activities.
32. The implementation of dwelling level heat metering should lead overall to lower bills on average but could give rise to confusion and concern amongst some residents as it could bring about changes to the way they pay for heat and the actual costs that they face. The billing route proposed in this paper is the most similar to current arrangements as possible while still being compliant with the regulations. However, high heat users could end up paying more in some cases, and this is more likely to affect elderly or vulnerable residents who require warmer temperatures to stay comfortable. By keeping the service in-house and building an internal staff resource with expertise in this area, we are giving the greatest opportunity for such cases to be identified quickly and relevant support offered.
33. As set out under the Equality Act 2010 and the Public Sector Equality Duty (PSED) an equalities impact assessment must be carried out. The recommendation of this paper is only to allow the draft policy to be consulted on. Once detailed feedback has been obtained from residents and the policy shape has matured, a full impact assessment will be carried out prior to a final policy being adopted.

### **Health impact statement**

34. It is well known that cold indoor temperatures can lead to respiratory problems in particular as well as other illnesses. People with certain disabilities, the elderly and the very young are particularly vulnerable to such issues. The introduction of metered billing could lead to these groups paying more for their heating in some instances, compared to a flat rate model used currently with tenants. By keeping the service in-house and building an internal staff resource with expertise in this area, we are giving the greatest opportunity for such cases to be identified quickly and relevant support offered.
35. One issue to be considered during the consultation is whether a special (reduced) tariff might be appropriate for those who can demonstrate that they are in fuel poverty and/or suffering from cold-related illness. This requires further careful consideration.

### **Climate change implications**

36. Following council assembly on 14 July 2021, the council has committed to considering the climate change implications of any decisions. A motion passed by cabinet in April 2019 commits the council to achieving carbon neutrality by 2030 if possible.
37. The installation of heat meters and subsequent billing according to consumption has a proven reduction on heat consumption and associated fuel use. In the case of most Southwark networks, that is currently natural gas, and thus the implementation of heat metering and billing will have a significant positive impact on carbon reduction ambitions and help the council on its way to carbon neutrality.

### **Staff resource implications**

38. For the effective delivery and management of heat meters from an asset management perspective is considered to require x2 FTE namely Heat Metering Manager and Heat Metering Officer. This resource would plan, consult, procure, manage, maintain, trouble-shoot and replace heat meters and data collection infrastructure while also being responsible for the technical outputs of the meters – temperature and flow data, consumption reports, identifying outages and working towards continual improvement. This resource would be required regardless of in-house or external delivery.
39. For the effective delivery of an in-house billing system from a finance perspective is considered to require 1-2 FTE TBC. This team would need to link closely with officers in asset management over meter consumption data.

### **Financial Implications**

40. The heat meters required within new homes, will be paid for out of existing development budgets. The ~2,000 heat meters required in retrofit situations are expected to cost in the region of £1.4m which would be counted as capital and could be allocated from the Heat Networks Strategy capital budget.
41. Revenue budget impacts would be the new staff identified above and minor costs associated with data hosting and software licences.

### **Consultation**

42. A heat networks Residents Working Group was set up in 2019 which looked at the topic of heat metering. A borough-wide consultation on heat networks was run in 2020 which also gathered views on heat metering. The views expressed by residents through these exercises have been fully taken into account in the development of this paper and the Draft Heat Metering Policy (Appendix 1).
43. A specific consultation is now proposed to allow residents to comment on the Draft Heat Metering Policy itself.

## **SUPPLEMENTARY ADVICE FROM OTHER OFFICERS**

### **Director of Law and Governance**

44. This report invites the individual decision maker to approve sending the Draft Heat Metering Policy out for consultation.
45. This is a key decision in accordance with the council's constitution.
46. Section 105 of the Housing Act 1985 for secure tenants and Sections 137 of the Housing Act 1996 (for introductory tenants) require local authorities to consult their tenants about matters of housing management. Section 20 of the Landlord and Tenant Act 1985 sets out the consultation requirements in relation to leaseholders. Individual cabinet members can agree consultation arrangements in relation to their area of responsibility.
47. Consultation must take place at a time when proposals are at a formative stage and sufficient reasons must be provided for any proposal, to allow for intelligent consideration and response. There must also be adequate time to permit consideration and a response to what is proposed. The outcome of the consultation must be conscientiously taken into account.
48. Section 11 of the Local Government (Miscellaneous Provisions) Act 1976 (as amended by the Electricity Act 1989), permits local authorities to generate and sell heat and electricity, and allows the purchase and supply of heat.
49. The Heat Network (Metering and Billing) Regulations 2014 (as amended in 2015 and 2020) (the "Regulations") seek to drive energy efficiency and reduce carbon emissions from heating. The Regulations should be read in conjunction with the Office for Product Safety and Standards Guidance, and apply to new and existing district heat networks or communal heating systems.
50. The payment and billing options and their expected impact are set out in the report.
51. The Regulations impose obligations on heat suppliers, as follows:
  - a) A duty to notify the Secretary of State of each heat network before or on the day it starts operating and to submit an updated notification for an existing network every four years following the initial notification.
  - b) A duty to install building level meters in district networks and to install final customer meters in new buildings, after major renovations or after a positive cost-effectiveness test (as described by the Regulations);
  - c) A duty ensure all meters accurately measure, record and display heat consumption; and where meters have been installed, install temperature control devices;

- d) A duty, upon a positive cost-effectiveness test, to install heat cost allocators that continuously operate correctly, are maintained and checked for errors, are accurate and correctly display readings, and to install thermostatic radiator valves and hot water meters
  - e) A duty to ensure that customers' bills are accurate, and based on consumption. Billing information should be provided at least twice per year. If a final customer requests e-billing, which must be available, billing information must be at least quarterly. There is a duty to not profit from the billing process.
52. In conducting the consultation and approving proposals after consultation, there is a duty to take the public sector equality duty (PSED) under the Equality Act 2010 into account. When making decisions the council must have regard to the need to:
- a) eliminate discrimination, harassment, victimisation or other prohibited conduct
  - b) to advance equality of opportunity and
  - c) foster good relations between persons who share a relevant protected characteristic and those who do not share it.

This report confirms that a full impact assessment will be undertaken before a final policy is adopted.

53. The proposed consultation will allow the council to obtain enough information to make an informed decision about the available options.

#### **Strategic Director of Finance and Governance (H&M 22/050)**

54. The Strategic Director of Finance and Governance notes the contents of the report and appendices. At this stage the policy is draft and subject to resident consultation followed by Cabinet approval. From a budgetary perspective, the additional staffing required to administer heat metering has been established as part of the 2022-23 HRA budget. The projected cost (c.£1.4m) of installing the initial tranche of 1200 heat meters in the stock that meets the prescribed viability criteria, will be met from the Heat Network Strategy capital budget in the Housing Investment Programme (HIP). The report concisely sets out the background and regulations to heat metering, the proposed methodology for calculating tariffs and billing options for tenants and homeowners. Any changes arising from the consultation in relation to these proposals as they stand or other relevant factors arising, will be reported to Cabinet later in the year.

#### **Director of Exchequer (for housing contracts only)**

55. The installation of heat meters is a requirement under the regulations referred to in the report, and would be chargeable to leaseholders. The work is being undertaken through a qualifying long term agreement, and as the service charge cost is above the £250 charge threshold referred to in the service charge

regulations it will be necessary to serve notices under S20 of the Landlord and Tenant Act 1985 (as amended). The consultation notices are under schedule 3 of the regulations, which require one notice setting out the scope of the work, the need for it and the cost. The contract should not be placed until the 30 observation period associated with the notices has closed. The costs will be charged through the capital billing run in February 2022.

56. The calculation of charges for those properties served by individual heat meters will be undertaken by the Revenue Service Charge Team, who will also be responsible for providing the calculations required to set the charges for tenanted properties.

## BACKGROUND DOCUMENTS

Background Papers	Held At	Contact
Heat Networks Strategy	160 Tooley St, SE1 2QH	Tom Vosper 02075257244
Link: <a href="#">Report Heat networks strategy.pdf (southwark.gov.uk)</a>		
Response to Housing Scrutiny Commission report into District Heating	Housing and Modernisation Department	Tom Vosper 02075257244
Link: <a href="#">Cabinet report template 2012 (southwark.gov.uk)</a>		
District Heating and Heat Networks Final Report	160 Tooley St, SE1 2QH	Tom Vosper 02075257244
Link: <a href="#">Cabinet report template 2012 (southwark.gov.uk)</a>		
Southwark Heat Networks Strategy Update	160 Tooley St, SE1 2QH	Tom Vosper 02075257244
Link: <a href="#">Cabinet report template 2012 (southwark.gov.uk)</a>		
Borough wide District Heating Strategy	160 Tooley St, SE1 2QH	Tom Vosper 02075257244
Link: <a href="#">Cabinet report template 2012 (southwark.gov.uk)</a>		

## APPENDICES

No.	Title
Appendix 1	Draft Heat Metering Policy
Appendix 2	Heat Tariff Calculation Methodology

## AUDIT TRAIL

<b>Lead Officer</b>	Michael Scorer, Strategic Director Housing & Modernisation	
<b>Report Author</b>	Tom Vosper, Strategic Project Manager – Heat Networks	
<b>Version</b>	Final	
<b>Dated</b>	21 July 2022	
<b>Key Decision?</b>	Key	
<b>CONSULTATION WITH OTHER OFFICERS / DIRECTORATES / CABINET MEMBER</b>		
<b>Officer Title</b>	<b>Comments Sought</b>	<b>Comments Included</b>
Director of Law and Governance Democracy	Yes	Yes
Strategic Director of Finance and Governance	Yes	Yes
Director of Exchequer	Yes	Yes
<b>Cabinet Member</b>	Yes	Yes
<b>Date final report sent to Constitutional Team</b>		21 July 2022