



Department
of Energy &
Climate Change

Equality analysis for the metering and billing of district heating, district cooling, communal heating and hot water systems

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Heat metering and billing implementation requirements

Summary of policy change

The Energy Efficiency Directive, which came into force in November 2012 (“the Directive”) establishes a common framework of measures for the promotion of energy efficiency within the EU in order to ensure the achievement of the EU’s 2020 20 % headline target on energy efficiency.

The relevant articles of the Directive on heat metering and billing are 9-11 and 13. Articles 9, 10 and 11 focus on the metering, billing information and the cost of access to metering and billing information.

Article 9 makes a number of requirements on the metering of district heating, district cooling, communal heating and/or hot water, both to measure individual consumption and consumption at the building-level in multi-apartment/multi-purpose buildings. Some of the requirements are dependent on tests of technical feasibility and cost-efficiency. However, in three instances the requirement is not conditional on such tests. The three are:

- (i) where a new connection is made in a new building;
- (ii) where a building undergoes major renovation; and
- (iii) at the point of delivery or heat exchange to buildings of multi-apartment or multi-purpose use.

Articles 10 and 11 make a number of requirements on the provision of billing information and the cost of access to metering and billing information.

Article 13 requires member states to put in place ‘effective, proportionate and dissuasive’ penalties applicable in case of non-compliance with the requirements of the Directive.

Rationale for policy change

The purpose of the Directive and the implementing legislation is to create an incentive for heat customers to use heat more efficiently. Where customers are billed based on a flat charge (typically per m² of floor space) they receive no incentive to reduce their consumption of heat. We estimate that only around a quarter of end consumers on heat networks currently have their heat consumption metered. An earlier study in 2007 indicated that 77% of dwellings in the social housing sector connected to a heat network did not have heat meters.

Evidence and analysis

Evidence has been gathered and assessed to gauge whether there would be a disproportionate impact of this legislation on certain groups. This document summarises the evidence available; fuller details on the evidence are captured in the Final Impact Assessment for this policy. To note that there is no additional specific data available on the breakdown of customers attached to heat network. Heat networks are not regulated, which means there is no requirement for heat suppliers to collect such data. However, some evidence is available on the type, location, and age of buildings connected to a network.

Who will be affected by the policy?

Heat suppliers and heat network customers are the two main groups affected by this policy. This analysis focusses on heat network customers. Heat networks and therefore heat network customers are more likely to be found in urban settings, where there are many buildings like blocks of flats and where alternative heating technologies such as individual gas boilers may not be an option. The estimated number of UK properties connected to heat networks is 405,499. Of these 396,746 or 98% are flats. This means that the impact of this policy falls almost exclusively on residents living in flats.

However, not all of these flats will be required to install individual heat meters - because it may not be cost effective or feasible to do so. In fact the analysis undertaken for the Final Impact Assessment and for the development of a Heat Meter Viability Tool is that, based on current costs, for the vast majority of properties it will not be cost-effective to install individual meters. Building-level meters will though be a mandatory requirement where district heating supplies blocks of flats and other multi-occupancy buildings.

From both the data available and the responses to the DECC consultation on this policy, it is clear that many of the schemes are owned or operated on behalf of local authorities or housing associations. As a result, there are likely to be a number of potentially vulnerable customers on heat networks given that there is a higher than average number of customers living in social housing.

What are the positive impacts of this policy?

At present, 75% of heat network customers receive an unmetered supply of heat with heat charged on a flat rate basis. Users who are charged a flat rate face little or no additional cost from increasing their consumption. This creates an incentive for users to consume more heat than if they were billed on the basis of how much they use.

One impact of billing for heat based on a flat rate charge is that, due to different occupancy patterns or energy using behaviour, there can be a situation where those who use less energy subsidise other users.

All customers on a metered heat network will face the same incentive to reduce their heat demand and will have the same ability to control the temperature and their heat usage. This means that all customers can benefit from reduced bills due to lower usage. However, the main beneficiaries will be those with low heat demand, who may face issues with subsidising high demand users under a flat rate payment system.

Where building-level meters have been installed, heat suppliers must seek to ensure that they follow a fair and transparent procedure for allocating the cost of heat, cooling or hot water to individual final customers within the building. This greater transparency may offer customers an incentive to reduce their heat demand, since all customers will benefit from lower overall usage, but may not address the potential for cross-subsidisation across the customer base.

What are the negative impacts of this policy?

There are costs involved with the purchase, installation and reading of heat meters. These costs will have to be passed on to end customers. However, individual heat meters will only be installed where it is cost-effective and technically feasible to do so (unless included in the mandatory requirements as set out above). It will be considered to be cost effective to install individual meters where the net present value of projected energy savings to final customers in a building over the 10 year period, beginning on the day after the date of completion of the installation in the building, is greater than the cost of installing the meters in that building.

Providing billing based on usage will move customers from fixed monthly bills to more transparent, variable bills. For some residents this could be difficult to manage and risks a rise in bad debts for both the customers and the network operators. There are also associated risks that, due to fears of increased bills, some poorer customers under heat their homes.

Does this policy have a less favourable impact on certain groups?

Those users with high occupancy patterns are most likely to face negative impacts from the policy change. They are more likely to have higher energy usage, so are at risk of increases in heating bills under a metered system, especially if the standing charge is a small proportion of the bill. Users with high heat demands are expected to include adults with young children, the retired and disabled people. Therefore there is a risk that these groups will be disproportionately affected by the policy change. It is not predicted that other protected groups will be affected. Importantly, any people with high occupancy patterns could be disproportionately affected not just people with protected characteristics.

There is an additional risk that some disabled or elderly customers will need assistance with understanding the changes and with reading their meters. Again, this can be managed through proper communication of the changes.

What was the outcome of these considerations?

It is unknown what proportion of heat network customers will face higher bills, but it is expected to be a small number.

No change is proposed to the policy, as based on existing information, it appears to have no adverse or disproportionate negative impact upon equality and DECC is content that the need to advance equality has been considered appropriately, though close monitoring of implementation will be required. DECC will monitor whether or not vulnerable groups will be adversely affected by the change and therefore whether this could amount to indirect discrimination.

What are the next steps?

To ensure the policy is being implemented as required, heat network operators will need to submit data to a secure online portal. The portal will help operators to establish whether it is cost effective for them to install a heat meter and will be used to capture data on the heat network. Further consideration will be given to the option of using the portal to monitor the equality impact.

There are also options open to heat network operators to assist vulnerable consumers on heat networks who are used to being charged for heat they consume at a flat-rate, to ensure they are not disadvantaged by new arrangements. For example, heating contracts can be set up to provide a basic level of heating for a fixed standing charge with a variable charge above this level according to the tenant's additional use. The Implementing regulations will require heat suppliers to set out the components of the standing charge and how standing charges are derived.

Installing heat meters offers the opportunity to offer prepayment options for customers. This could be a positive benefit for customers on low incomes. There is no requirement in the Directive to offer prepayment meters, but this option is often provided by the heat suppliers. Feedback from the government consultation on this policy suggests that these options are being considered by operators.

Separately, the Government is working with the heat network industry to support an independent, industry-led customer protection scheme. This will put in place safeguards for vulnerable customers. It will also introduce a customer complaints process. It will be important that the regulations and the industry-led scheme are fully aligned. This is expected to balance out any potential negative impact from the implementation of the heat metering requirements of the Directive.

The Directive does not apply particular exemptions for particular consumers, organisations or sectors. However, the Government will keep this area under close review and if necessary, work with local authorities to explore appropriate policy responses should these be needed. An integral part of the transition to metering, where required or viable, will be the National Measurement Office's (NMO) approach to enforcement. One of the primary functions of the NMO will be to support implementation and to take a proportionate role in addressing non-compliance.

When will the potential impacts be reviewed?

The impact of the changes will be kept under review by DECC, and by the scheme administrator – the National Measurement Office. The government has committed to reviewing the implementation of the heat metering and billing requirements within five years of the regulations coming into force. This review is likely to include an evaluation of the impacts of implementing the Directive on both a quantitative and qualitative basis, including on vulnerable groups.

Sign off

During this decision making process there has been full consideration of the requirements of the Equality Act 2010 including the Public Sector Equality Duty. There is sufficient evidence of this in the proportionate approach that will be adopted to implementation as set out in the Government Consultation Response. The Department has therefore complied with its legal obligations.

Signed (SRO or equivalent)



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