



ISLINGTON

# **Communal Heating Scrutiny Review**

## **REPORT OF THE ENVIRONMENT AND REGENERATION SCRUTINY COMMITTEE**



London Borough of Islington  
September 2015

# EXECUTIVE SUMMARY

## Communal Heating Scrutiny Review

### Aim

To examine the effectiveness of the current communal heating provision in Islington.

### Evidence

The review ran from October 2014 until September 2015 and evidence was received from the following witnesses:

- Garrett McEntee, Technical Services Manager, Capital Improvement Team
- Bryony Willett, Head of Housing Partnerships and Communities
- Andrew Ford, Energy Advice Manager
- Jonathan Graham, Head of Policy at the Association for Decentralised Energy (ADE)
- Councillor James Murray, Executive Member for Housing and Development

### Main Findings

1. In Islington, 4,268 homes in 48 blocks were connected to communal heating systems. The council's current policy for communal heating was agreed in October 2010 following consultation with residents and it took into account residents' preferences. The council had a preference for retaining or replacing communal heating. Heating was provided for 18 hours per day, 36 weeks per year between October and May. Within this period heating was provided between 6am and midnight. Following consultation in 2015 it was decided to continue with this policy. However Spa Green and Kings Square estates would have additional provision due to the poor thermal performance of these blocks.
2. There were a number of benefits to communal heating. It helped to support the council's Fairness Commission objectives included in the current Islington Corporate Plan i.e. decent, suitable and affordable homes. The installation of communal heating systems made homes easier to keep warm and more affordable to heat. Communal heating systems helped to break the cycle of fuel poverty where a household had to spend over 10% of its income on energy costs. It was estimated that 8.1% of households in Islington were living in fuel poverty. It was generally recognised that communal heating, in conjunction with decentralised energy schemes would provide a more economical source of heating and hot water than individual boilers.
3. A communal heating system consistently used less energy than an individual heating system by a range of 7.5% to 11%. There was a consistent heating supply to properties with communal heating. Communal heating provided the opportunity to pass savings obtained from bulk gas purchase back to residents.
4. Communal heating reduced the risk of illnesses associated with condensation or dampness. Condensation and dampness could have significant negative health impacts, especially for the very young, the elderly and those with long term health conditions.
5. There were a number of disadvantages to communal heating. It required significant up front capital investment costs with the potential to generate substantial bills for leaseholders living in the blocks where works were carried out. Complex engineering projects led to long lead in times.

6. It was difficult to provide a fair and equitable service where blocks varied considerably in terms of energy requirements and a balance had to be achieved between service provided and energy costs and carbon dioxide emissions.
7. There was not the same level of individual control with communal heating as there was with individual heating systems. Heat meters could give residents the ability to control their heating levels. However there were significant costs associated with heat meters and there were problems with the meters failing. In the future, it was anticipated that improvements in technology would improve the performance of heat meters.
8. Communal heating systems could be subject to catastrophic failure as each plant could serve a significant number of residents and this could create hardship for residents. Reaction times to breakdowns or failures could be slow due to the complexity of the infrastructure equipment. The council had a risk management plan in place. There was a capital investment programme, a reactive and monthly planned preventative maintenance programmes and boilers were serviced annually. Despite communal heating systems requiring significantly higher up front capital investment, their lifetime costs were lower than where individual heating systems were installed.
9. Since 2010, improvements had been made which meant some communal heating boilers could now turn on and off in response to outside temperatures.
10. Council properties generally had the highest energy efficiency, followed by social housing, owner occupied housing and then private rented housing. The council was committed to improving energy efficiency within available resources and there was a need to prioritise energy efficiency measures.
11. The council had invested over £100m in improving the energy efficiency of its stock over the past ten years. All cavity walls had now been filled, all F and G-rated boilers had been replaced, some solar panels had been installed, thousands of lofts and flat roofs have been insulated, solid wall insulation has been installed and double glazing has been installed in the majority of council homes. The council was currently developing an Energy Efficiency Investment Strategy that would prioritise £5m of additional investment in energy efficiency over the next seven years. Examples of this could include more double glazing, external wall insulation and improved heating controls. The evidence base informing this strategy was in development but the principle would be that investment was directed to where it was needed most and where it could have the biggest impact.
12. Work would take place to improve communication with residents on communally-heated estates about the responsible use of communal heating systems This would include information about how to use heating controls to ensure residents were not over-heating their homes and were not opening windows instead of turning heating down. Making the case for this involved educating residents that if everyone used less, heating costs would go down for everyone.
13. Compensation was currently applied automatically to tenants' rents account when there has been a loss of communal heating service for three days or more. Tenants did not have to apply for this - the payment was applied automatically applied. The payment was calculated based on the daily charge for communal heating (e.g. three days loss of heating would result in three days' cost being compensated). It was recommended that the policy be amended to provide compensation following a two day loss of heating and that the compensation should be increased in line with the increased cost of electric heating compared to communal heating.
14. District heating was common in other European countries. It was most common in Scandinavia, Germany and Sweden. There were currently 405,000 dwellings in the UK with

district heating and 4% of heat demand was met by district heating schemes. There was a Government ambition to grow district heating to meet 14% of heat demand by 2030, where suitable. However district heat not the right solution in all places. It worked best in urban areas with high density. There were 50,000 dwellings on modern district heating schemes and new build and retrofit planned projects would provide district heating to a further 50,000-60,000 dwellings. 377,000 dwellings had been put on district heating systems as a result of block heating refurbishment. This equated to 2% of dwellings. There was potential for 3-8million dwellings to have district heating. District heating was growing at about 10% per year. There was much investment in London through the London Plan and ECO delivery.

15. The Heat Network Code of Practice set minimum technical standards and obligations for all parts of the supply chain. Training and accreditation schemes were planned. The Department of Energy and Climate Change supported this programme with grant funding. The Heat Metering and Billing Regulations required building level meters to be installed by the end of 2016. Meter visibility and accuracy was required and bills would have to be linked to usage. The council had considered the implications of the 2014 EU Energy Efficiency Directive for Islington's Housing Service and this included the need to procure a heat metering supplier and operator.

## **Conclusion**

The committee heard evidence about communal heating schemes in the borough, the benefits and drawbacks of these and the work which was taking place to improve the heating provision for residents. The committee hoped the recommendations of the scrutiny review would further improve heating provision for residents.

## **Recommendations**

1. That qualitative research be carried out to ask different groups of residents, such as those in work and those at home during the day, how they would use their heating if heat metering was introduced.
2. That consideration be given to amending the policy on compensation following a loss of heating service to provide compensation following a two day loss of heating. Also, that consideration be given to increasing compensation in line with the increased cost of the temporary electric heating provided, compared to communal heating costs had there been no disruption to the service.
3. That work take place to improve communication with residents on communally-heated estates about the responsible use of communal heating systems.
4. That the council continues to apply for ECO Funding for appropriate schemes.
5. That the council works towards meeting the EU Energy Efficiency Directive.
6. That officers include an update on the positioning of thermostats and sensors, a review of the changes made during the year, plus details of the number of residents with and without heating controls in the 12 month report back.

## MEMBERSHIP OF THE ENVIRONMENT AND REGENERATION SCRUTINY COMMITTEE

### COUNCILLORS - 2014/15

#### **Councillors:**

Councillor Court (Chair)  
Councillor Diarmaid Ward (Vice-Chair)  
Councillor Doolan  
Councillor Gantly (until February 2015)  
Councillor Heather  
Councillor Jeapes  
Councillor Russell  
Councillor Turan  
Councillor Nick Ward

#### **Substitutes:**

Councillor Kay  
Councillor O'Sullivan  
Councillor Alice Perry  
Councillor Rupert Perry  
Councillor Shaikh  
Councillor Smith  
Councillor Wayne

### COUNCILLORS – 2015/16

#### **Councillors:**

Councillor Court (Chair)  
Councillor Diarmaid Ward (Vice-Chair)  
Councillor Debono  
Councillor Doolan  
Councillor Hamitouche  
Councillor Heather  
Councillor Jeapes  
Councillor Russell  
Councillor Spall

#### **Substitutes:**

Councillor Kay  
Councillor Diner  
Councillor Alice Perry  
Councillor Poyser

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*Officer Support:*

*Zoe Crane – Democratic Services*

*Garrett McEntee, Technical Services Manager, Capital Improvement Team*

*Bryony Willett, Head of Housing Partnerships and Communities*

## **1. Introduction**

- 1.1 In Islington 4,268 homes, in 48 blocks, were connected to communal heating systems. The council's current policy for communal heating was agreed in October 2010 following consultation with residents and it took into account residents' preferences. The council had a preference for retaining or replacing communal heating. Heating was provided for 18 hours per day, 36 weeks per year. Heating was turned on during late September and was turned off at the end of May. Within this period heating was provided between 6am and midnight.
- 1.2 Some blocks with specific issues had agreed variations to the communal heating policy e.g. in some blocks it was not possible to install cavity wall insulation so the properties did not retain as much heat as properties which were more insulated. Providing heating for more than the current 36 weeks per year would result in an additional cost and increased carbon dioxide emissions.
- 1.3 In the London Plan, the Mayor of London's focussed on becoming more self-sufficient in relation to energy needs. The Plan required new major developments to have energy systems installed in accordance with the following hierarchy:
  - 1) Where heating or cooling networks existed, developments should connect to them
  - 2) Consideration should be given to a site wide combined heat and power network
  - 3) Consideration should be given to a system providing communal heating and cooling.
- 1.4 Under the council's Planning Strategy all new build developments were required to contribute to the development of decentralised energy schemes including connection to current district heating networks where these existed within the proximity of the development.

## **2. Findings**

### Benefits to Communal Heating

- 2.1 There were a number of benefits to communal heating. It helped to support the council's Fairness Commission objectives included in the current Islington Corporate Plan i.e. decent, suitable and affordable homes. The installation of communal heating systems made homes easier to keep warm and more affordable to heat. Communal heating systems helped to break the cycle of fuel poverty where a household had to spend over 10% of its income on energy costs. It was estimated that 8.1% of households in Islington were living in fuel poverty.
- 2.2 It was generally recognised that communal heating, in conjunction with decentralised energy schemes would provide a more economical source of heating and hot water than individual boilers.
- 2.3 There was an opportunity to utilise energy from existing combined heat and power (CHP) plant. Heat generated from CHP was pumped to local housing estates connected to communal heating systems. An example of where this was in use was the Bunhill Phase 1 "Energy Centre" CHP plant. This would help to address the targets set in the Energy Conservation Act 2000 to eradicate fuel poverty by 2016 and help to reduce the levels of greenhouse gas emissions (34% of 1990 levels by the year 2020 and 80% by 2050).
- 2.4 Paying a flat rate meant that tenants could budget more easily which helped to address the impact of fuel poverty on vulnerable and low income residents and helped to mitigate the

worry of heating costs. Heating and hot water costs were included in the monthly service charge spreading the cost across the entire year as opposed to just the winter months when there was increased demand for heating.

- 2.5 A communal heating system consistently used less energy than an individual heating system by a range of 7.5% to 11%. There was a consistent heating supply to properties with communal heating. Communal heating provided the opportunity to pass savings obtained from bulk gas purchase back to residents.
- 2.6 Communal heating reduced the risk of illnesses associated with condensation or dampness. Condensation and dampness could have significant negative health impacts, especially for the very young, the elderly and those with long term health conditions.

#### Issues with Communal Heating

- 2.7 There were a number of disadvantages to communal heating. It required significant up front capital investment costs with the potential to generate substantial bills for leaseholders living in the blocks where works were carried out. Complex engineering projects led to long lead in times.
- 2.8 It was difficult to provide a fair and equitable service where blocks varied considerably in terms of energy requirements and a balance had to be achieved between service provided and energy costs and carbon dioxide emissions.
- 2.9 There was not the same level of individual control with communal heating as there was with individual heating systems. Heat meters could give residents the ability to control their heating levels. However there were significant costs associated with heat meters and there were problems with the meters failing. In the future, it was anticipated that improvements in technology would improve the performance of heat meters.
- 2.10 Communal heating systems could be subject to catastrophic failure as each plant could serve a significant number of residents and this could create hardship for residents. Reaction times to breakdowns or failures could be slow due to the complexity of the infrastructure equipment. The council had a risk management plan in place. There was a capital investment programme, a reactive and monthly planned preventative maintenance programmes and boilers were serviced annually. Despite communal heating systems requiring significantly higher up front capital investment, their lifetime costs were lower than where individual heating systems were installed.
- 2.11 Residents raised a number of concerns as follows:
  - They had not been consulted on the communal heating policy. The Chair requested that officers look into how the agreements were put in place, whether the consultation was conducted correctly and if this was not the case, look at the feasibility of reopening the agreements.
  - They were not kept updated about communal heating policies and communications from the teams responsible for the mechanical and engineering service could be improved.
  - There were frequent problems with communal heating systems and heating could be erratic. A resident advised the committee that on the Stafford Cripps estate, the heating was not turned on until mid October, when it was on it was operating at a low level and it would often go off during the times it was supposed to be on.
  - They had no control over the temperature of the heating.

- Concerns were raised about the position of the thermostat controls in properties within Braithwaite House. Officers explained that thermostats had been placed in the hall of the property which was generally the usual position for thermostats. However it was noted that some of the flats were on two levels and it was possible that the thermostats could be more effective if placed at a median level within the property. A pilot would be undertaken whereby a thermostat would be moved to the median level and this would be monitored for a couple of weeks to test the performance of the thermostat.
- Concern was raised that the costs of communal heating were not shared equally. Council tenants paid the borough average and leaseholders paid the block average.
- Concern was raised that residents did not receive a proportionate rebate when their heating was not working and would only receive a rebate once the heating had not been on for three separate days.
- Concern was raised that those on low incomes found it difficult to pay for their heating and hot water and if they did not pay the money, it was treated as rent arrears. They could therefore be evicted and taken to court because they had not paid their bills. Officers were asked to investigate whether this was national policy or whether Islington had any control over this. Those with individual heating systems were not subject to rent arrears for not paying their heating bills.
- Concern was raised about whether communal heating was more energy efficient than individual systems. Officers presented a lifetime cost benefit analysis case study of a block of 110 flats with communal heating which showed that gas consumption over 30 years was significantly lower than it would be if the block had individual boilers.
- Concern was raised that there could be some people with communal heating who paid more than the national average for their heating. Until the statistics for the 48 blocks with communal heating was known, the extent of the issue would not be known. Officers advised that the Bunhill scheme had saved money and this saving had been passed on to residents.
- Concern was raised that the 2010 borough wide consultation results were not broken down by estates. Officers advised that the next consultation could be broken down by estate.
- A member of the public raised concern about Kings Square Estate having heating for 24 hours a day instead of the standard 18 hours. This would be investigated by officers.
- A member of the public suggested that communal heat could use provided from biomass or renewable energy. An officer responded that the Bunhill Heat and Power Scheme - Phase 2 would capture heat from the Transport for London system. There were some biomass boilers but these were more expensive than gas. One or two boilers were being replaced each year.
- A member of the public queried the legal basis for the way tenants and leaseholders were charged. The officer advised that legally leaseholders had to be charged on a block by block basis. The council had made a policy decision to charge tenants differently and there was no legislation governing tenant charges.
- A member of the public raised concern about their energy usage not decreasing following insulation works and the installation of controls. Officers would look into this.

#### Islington's Communal Heating Systems

- 2.12 Plant rooms were connected to the Building Management System (Trend System). Systems were monitored remotely to identify working temperatures, breakdowns and performance. Concerns were raised about the position of the Trend Building Management sensors in the plant rooms. If these were repositioned, they could provide more accurate data on the

system performance which at the moment sometimes resulted in inaccurate information being passed to residents. Officers advised that this aspect of the Trend System was currently being reviewed to see where improvements could be made.

- 2.13 It was highlighted that the Trend Building Management system which connected plant rooms to the Building Management System could be improved to provide a more responsive service and more accurate information where failures in plant occurred. Sensors in the plant rooms monitored performance e.g. by monitoring water temperature within the system. These were not working as well as they could so there was a need to improve the communication between the plant rooms and the internal team. This could involve repositioning the sensors within the plant room. A report would be published and costs for any improvements would have to be agreed before any work could be undertaken.
- 2.14 The forward plan included a seven year future programme of works with an asset management plan to help identify and prioritise future works. There would be joined up thinking with other programmes of work. Feasibility, condition assessment and lifespan criteria would help to identify changing needs and requirements. There would be stakeholder involvement in future programmes.
- 2.15 The forward plan provided an opportunity for better inclusion from stakeholders and an opportunity to avoid major breakdown failure. It provided a process to move work into the capital programme, identify projects at the right time and provided an opportunity to review potential areas of risk with the planned maintenance team. There was a need to listen to resident groups and tailor services to meet resident requirements.
- 2.16 It was not possible for residents living in blocks with communal heating to opt out of the communal heating and install their own boilers.
- 2.17 The maintenance contact cost the council £1.5million each year. Work on the communal system on the Finsbury Estate including relocating the boiler house, renewing the pipework and installing radiators and controls in 328 flats cost £3.1million.
- 2.18 In relation to major breakdowns, there was a register of vulnerable residents living in the 48 blocks where there was communal heating and there was an out of hours team on standby to address this in the event of a catastrophic breakdown. Support was also available from the maintenance contractor team and the internal repairs team.
- 2.19 The council undertook cavity wall insulation, loft insulation, reduced the number of F and G rated properties and undertook solid wall insulation. Whereas cavity wall insulation was relatively quick and easy to undertake with minimal disruption to residents, solid wall insulation was harder and caused more disruption. The council regularly applied for ECO funding. It had recently been used for the Holly Park Estate solid wall insulation.

#### Findings from a review of the communal heating system

- 2.20 In response to feedback from some residents that they sometimes felt the temperature was too low in June and September. Consultation took place in 2015 on extending the heating season into June and earlier in September when the outside temperature dropped below a certain level. Not all of the council's communal boiler houses were able to be programmed in this way so the consultation was only sent to 1781 residents where the boiler houses had this option. 447 people responded. 51.4% of these of these opted for no heating in June and September and the majority of residents did not respond to the consultation at all, which may have suggested that they were in favour of no change. Following the consultation the Executive agreed to continue the current policy to provide communal heating for 36 weeks per year (October to May). This would not apply to the Spa Green and Kings Square estates.

- 2.21 To assess thermal performance at Spa Green and Kings Square, the council undertook an exercise to assess the energy efficiency of its communally heated housing. This affected whether the buildings stayed warm overnight in winter and during cooler weather in the summer when the heating was turned off. This exercise demonstrated that due to their construction Spa Green and Kings Square lost a lot more heat than the other communally heated estates, with Spa Green being the least able to retain heat. Feedback from a summer heating hours pilot and the recent consultation as well as complaints about heating also confirmed that residents on these estates felt colder than residents in other communally heated properties. Following the exercise the Executive agreed the provision of heating to the Spa Green and Kings Square estates in June and September (when additional temperatures dropped below 16degrees centigrade), at no additional charge, due to the poor thermal performance of these blocks, which was significantly below that of other estates. It was also agreed that the additional charge for overnight heating to Spa Green residents would cease and that current residents would be refunded the amounts paid for overnight heating from 1 April 2011. This would improve fairness by helping to ensure that all residents in communally heated properties stayed warm throughout the year and that all tenants paid the same for their heating service.
- 2.22 Since 2010, improvements had been made which meant some communal heating boilers could now turn on and off in response to outside temperatures.
- 2.23 The plant room water sensors would be repositioned where necessary to give the optimum reading of water temperature. This work would be undertaken under the existing contract responsible for maintenance and repair. This contract cost £1.5m per year.
- 2.24 When system and plant upgrades took place, existing controllers could be changed to 3G routers where appropriate. This would improve the communication with plant rooms to provide a more responsive service. Funding was in place to progress this work to some of the blocks with a history of poor performance.
- 2.25 Work would take place to improve the Trend Building Management System and increase training for in-house staff if further funding was obtained.
- 2.26 The council had a different approach to calculate charges to tenants and leaseholders for communal heating. Tenant services were charged on a pooled basis so all tenants in the same property size paid the same regardless of which estate they lived on. Legally the council could not pool leaseholder charges so they were calculated by taking the yearly fuel costs of the boiler house which serviced each leasehold property and dividing this by the number of properties that received heating from that boiler. In practice this meant there was almost always a difference between tenant and leaseholder charges for heating.

Evidence from Jonathan Graham, Head of Policy at the Association for Decentralised Energy (ADE)

- 2.27 Jonathan Graham, Head of Policy at the Association for Decentralised Energy (ADE) gave a presentation on District Heating and Heat Consumers. He advised the Committee that the ADE had more than 90 members which included local authorities, housing associations, university campuses, industrial manufacturers and energy suppliers and it was funded by members. The ADE vision was “for an energy system that was dictated by the consumers needs rather than one that dictated to them, creating a more local, efficient and less costly energy system”.
- 2.28 District heating was common in other European countries. It was most common in Scandinavia, Germany and Sweden. There were currently 405,000 dwellings in the UK with district heating and 4% of heat demand was met by district heating schemes. There was a Government ambition to grow district heating to meet 14% of heat demand by 2030, where suitable. However district heat not the right solution in all places. It worked best in urban

areas with high density. There were 50,000 dwellings on modern district heating schemes and new build and retrofit planned projects would provide district heating to a further 50,000-60,000 dwellings. 377,000 dwellings had been put on district heating systems as a result of block heating refurbishment. This equated to 2% of dwellings. There was potential for 3-8million dwellings to have district heating. District heating was growing at about 10% per year. There was much investment in London through the London Plan and ECO delivery.

- 2.29 32 university schemes had been completed and 17 more were planned. 64 hospital schemes had been completed with a further 20 schemes possible. Local authority led development required authorities to undertake energy master planning, address planning requirements, conduct brokering, procuring, operating and owning heat networks and direct ECO funding. Emerging schemes included Leicester City Council, Newport City Homes Limited, Manchester – Media City, Newcastle - Riverside Dean, Stoke and Association of Greater Manchester Authorities. London schemes included Olympic Park and Stratford City, Southwark SELCHP, Guildhall, Bastion House and London Central Markets, Pimlico District Heating, Bloomsbury Heat & Power, Kings Cross, Barkantine Heat and Power, Greenwich Millennium Village, Shoreditch and Bunhill in Islington. Established schemes with growth potential included Birmingham, Nottingham, Shetland Heat, Energy and Power, Southampton City Council, Woking, Sheffield, Milton Keynes and Aberdeen Heat & Power.
- 2.30 Benefits of district heat included being able to access a wider range of heat generation technologies, being able to generate heat more efficiently, lower energy costs, reduce labour and maintenance costs as well as CO2 emissions. It also helped to tackle fuel poverty and cold homes.
- 2.31 Challenges included high heat network losses which added to costs and could cause overheating, systems not being designed to exploit value from CHP electricity sales, capital cost cutting ('value engineering') resulted in higher running costs, there could be poor communication between contractors, district heat suppliers and building managers/network operators and a lack of transparency between network operators and customers.
- 2.32 The Heat Network Code of Practice set minimum technical standards and obligations for all parts of the supply chain. Training and accreditation schemes were planned. The Department of Energy and Climate Change supported this programme with grant funding. The Heat Metering and Billing Regulations required building level meters to be installed by the end of 2016. Meter visibility and accuracy was required and bills would have to be linked to usage.
- 2.33 The Heat Trust was a voluntary scheme designed to ensure customers received a comparable level of standard as on gas or electricity services. It was open to all customers with direct relationships with the heat supplier. The initial scheme might not be compatible with housing association or local authority schemes if heat was not sold directly to customers. The scheme would be launched in September 2015.
- 2.34 Ways to ensure high quality district heating included setting minimum design standards set by the Code of Practice, ensuring technical expertise in planning and using the Heat Trust, where appropriate. Any planning measures should aim to apply to all technologies. These measures should help provide residents with the highest quality housing and heating.

### Heating Costs

- 2.27 Tenants and leaseholders both paid for the cost of gas needed to provide communal heating. The council had a different approach to calculating charges to tenants and leaseholders for communal heating. This was because there was a different legal framework for these two groups. Other service charges, such as caretaking, were also calculated

differently. Tenants' service charges were calculated on a pooled basis because it was considered to be the fairest and simplest way as all tenants in properties of the same size paid the same charge regardless of which estate they lived on.

- 2.28 The Housing Act 1985 specified that councils could not 'pool' leaseholders' charges so leaseholders' heating charges in Islington were calculated by taking the yearly fuel costs of the boiler house that serviced each leasehold property and dividing this by the number of properties that received heating from that boiler. In practice this meant that there was almost always a difference between tenant and leaseholder charges for heating. On some estates tenants paid more than leaseholders and on other estates leaseholders pay more than tenants.
- 2.29 There was a timing difference between the times when tenant and leaseholder charges were set for the coming year. Tenant charges were based on gas usage in the previous year plus an estimate of the change in the cost of gas. Leaseholder charges were based on the actual cost of gas from two years ago plus an estimate of the increase in the cost of gas for the coming year. In the financial year 2014/15 these timing differences meant that tenants with an average charge of £604, paid more than leaseholders, with an average charge of £520.
- 2.30 Providing communal heating cost the council less than expected in 2014/15. If at the end of a year there was a significant surplus in the communal heating account, tenants would be given a rebate. This was likely to be approximately £100 for 2014/15 bringing the average tenant charge to approximately £500. The rebate to tenants would be apportioned according to the amount the tenants paid and paid to the rent account. Even without the rebate, differences between tenant and leaseholder charges would even out in the following years because the tenant heating account was ring-fenced. Whilst leaseholders' charges would be adjusted to reflect any actual increase in the cost of gas in future, tenants' charges would not increase because they paid more in the 2014/15 financial year. The net position over the last ten years was that tenants receiving communal heating had paid approximately £400k less than the actual cost of the service.
- 2.31 The council calculated all tenant services charges on a pooled basis. For communal heating, the pooled system meant that on some estates tenants pay more than leaseholders for the services they received but on other estates leaseholders paid more than tenants. It was not recommended that the council offered tenants the option of de-pooling their heating charge. This went against the principle of all tenants sharing equally in the cost of services. If tenants' charges were calculated on a block by block basis there would be significant variances in the tenants' charges with charges on some estates going down and charges on other estates going up. It was likely that estates with lower than average per unit costs of heating would opt to leave the pool – pushing the price up for those tenants who were still part of the pool.
- 2.32 To bring tenants and leasehold charges into line would require a total re-working of the way tenants' and leaseholders' service charges were calculated. The administrative cost in calculating tenants' service charges on the same basis as leaseholder charges would be significant because costs would have to be adjusted on a block by block basis for all residents not just 25 percent of properties. Also, leaseholders were currently billed annually for their heating (and other service charges) at the start of the year and many choose to pay monthly by direct debit. Previous consultation had shown that many tenants preferred to pay their heating costs on a weekly basis.
- 2.33 Significant administrative and programming costs would be incurred if tenants' heating charges were adjusted throughout the year to reflect changes in the cost of gas. On a quarterly basis the council would need to write to all tenants advising them of the changes,

programme the income control database, work with the energy team to forecast future energy prices and adjust charges. The estimated cost of this in officer time and mail-outs was £30,000 - £50,000 per year, or £10 – £15 per tenant. This would reduce any rebate or reduction in charges. Further, less than 20% of tenants paid by direct debit. Other tenants would need to manually adjust any standing orders or other payments for what would often be a small change in charges.

- 2.34 Giving the option of residents paying for the amount of heating they individually used would require the installation of heat meters. The installation of heat meters was not a simple process like the installation of an electricity smart meter. In many cases it required the significant modification of heating pipework.
- 2.35 In the social housing sector the view of individual heat metering differs between providers. Some other large heat network operators such as Sheffield Council, Nottingham Council and Peabody Housing Association had recently decided to move to individual metering in all properties. Others, such as Aberdeen, were currently committed to maintaining a flat rate charge.
- 2.36 There were a number of potential positives and negatives of individual heat metering, as set out in the table below. The key positive was that some residents would save money because they would use less heating. However, there would be increased costs (installation, billing management, meter repair) which would offset these savings. Based on an annual fixed cost of £135<sup>1</sup> tenants in a two bedroom property would have to reduce their heating usage by more than 20% to see a financial benefit from heat metering. DECC guidance estimated that residents reduced their usage by 20% following installation of heat meters which would mean that, on average, households would not see a saving. Heating costs for certain groups of more vulnerable residents, such as older people and families with small children at home, might increase as a result of heat metering, because usage would not go down but costs would go up<sup>2</sup>. Fixed costs would increase significantly if meters and controls were installed as a standalone project rather than as part of a system upgrade. In these cases annual fixed costs were estimated at £290 which would mean residents' usage would need to reduce by more than 40% to see a financial saving.

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<sup>1</sup> This is made up of £450 for meter installation and a ten year meter lifespan (as advised by DECC), £80 for billing and payment management (as advised by DECC) and £10 for meter servicing. Experience from Sheffield is that installation costs are £550 per unit and experience from Nottingham is that servicing costs are £50 per property per year.

<sup>2</sup> DECC have carried out research into the heating habits of different groups which estimates hours of heating for different groups, for example people out during the day use their heating for an average of 7 hours whilst those in during the day average at 10 or 16 hours. This does not correlate with our own consultation when the preferred option was for 18 hours of heating even where reduced heating hours would reduce cost.

Potential positive	Potential negative
Gives residents more choice over when to have their heating on.	Residents at risk of fuel poverty choose to under-heat their homes causing issues such as ill health and increased risk of condensation in the property.
Some residents' heating costs would reduce because they would only pay for the heating they use, and most people would choose to have their heating on for less than the current 18 hours per day. Estimated reduction in usage is 15 - 30% following metering. (DECC assume 20%).	The annual cost of installing, managing payment and maintaining for individual meters would be approximately £135 per property per year (£45 for installation (1/10 <sup>th</sup> of the total cost), £80 for managing payment and £10 for maintenance). The assumption is that this would be included in the heat charge –cancelling out the savings from using less heat.
If residents used less heating CO2 emissions would also reduce. Also it may free up capacity in our existing boiler houses – potentially allowing new buildings to be added to existing networks.	The capital cost of installing heat meters is estimated to be £450 per unit, and meters are assumed to have a ten year lifespan. Costs would increase if modifications to controls/pipework were required. The total cost across all unmetered communally-heated properties is estimated to be a minimum of £2m.
	Ongoing maintenance of individual heat meters would be required. Access to carry out this maintenance has proved difficult on the council's two estates with individual heat meters.
	The cost of installing individual heat meters would be rechargeable to leaseholders
	Heating costs for some of the most vulnerable residents, for example the elderly or those with small children at home, may increase as a result of heat metering.

- 2.37 The council had a policy to put all service charges together on one account as this was the simplest way to charge tenants. Support was provided to those struggling to pay housing costs.
- 2.38 Refunds to those who had no heating for three or more consecutive days were put on the resident's rent account.
- 2.39 Islington's properties were generally smaller than the average property and residents used 25% less heating than the national average. If individual boilers were installed, it would cost approximately £800 to run a boiler, servicing would cost approximately £70 and call out charges/ repairs would be extra. The national average time heating was on per day was 9.5 hours, 5.5 months per year. Communal heating was usually on for 18 hours per day, 8 months a year. If tenants had communal heating on for 9.5 hours, 5.5 months a year, they would pay less for their communal heating than they would if they had an individual boiler, however, due to communal heating being on for 18 hours per day, 8 months per year, they paid a few percent more. Residents had been consulted on the timings for communal heating and had chosen for heating to be on for 18 hours per day.

- 2.40 Council properties generally had the highest energy efficiency, followed by social housing, owner occupied housing and then private rented housing. The council was committed to improving energy efficiency within available resources and there was a need to prioritise energy efficiency measures.
- 2.41 Concern was raised that tenants had no incentive to use energy in an efficient way under a communal heating system and tenants paid more to heat buildings which were energy inefficient. Officers advised that many residents had controls to turn their heating off or down and that although this would not reduce in a reduction in their bill, if all tenants did this, it would.
- 2.42 The Department of Energy and Climate Change had looked at the costs associated with individual heat meters. Energy costs could reduce by 15-20% with a change in behaviour. The meters cost approximately £300, however this did not include the modifications to pipework which could be significant. Access to properties was required for installation, servicing and maintenance.
- 2.43 Most people who were fuel poor lived in D or E rated properties. The council had few F and G properties and the cost of improving these would be substantial. Most F and G homes were in the private rented sector.

#### Potential Improvements/Policy Options

- 2.44 Improving the energy efficiency of communally-heated estates to help tenants feel warmer and reduce gas usage and hence costs

The council had invested over £100m in improving the energy efficiency of its stock over the past ten years. All cavity walls had now been filled, all F and G-rated boilers had been replaced, some solar panels had been installed, thousands of lofts and flat roofs have been insulated, solid wall insulation has been installed and double glazing has been installed in the majority of council homes. The council was currently developing an Energy Efficiency Investment Strategy that would prioritise £5m of additional investment in energy efficiency over the next seven years. Examples of this could include more double glazing, external wall insulation and improved heating controls. The evidence base informing this strategy was in development but the principle would be that investment was directed to where it was needed most and where it could have the biggest impact.

- 2.45 Improving communication with residents on communally-heated estates about responsible use of communal heating systems

This would include information about how to use heating controls to ensure residents were not over-heating their homes and were not opening windows instead of turning heating down. Making the case for this involved educating residents that if everyone used less heating costs would go down for everyone.

- 2.46 Reviewing the assumptions around heating and hot water usage and around the 'bedroom weightings' for heating and hot water charges

At the moment tenants just receiving heating from hot water systems were charged 60% of what other tenants receiving heating and hot water paid. This was a historical best estimate based on information at the time. This assumption would be reviewed to a more evidence-based position.

The heating charges for tenants were based on technical estimates of the amount of energy used by each property size in Islington. This was compared to national averages provided by Department of Energy and Climate Change (DECC). Applying these national averages would increase charges for larger properties and reduce charges for smaller properties. This was not recommended because costs would increase for larger households who might be struggling financially.

Heating charges for leaseholders were based on the average for a two-bed property, to which 10% percent was added or deducted for each room that the property had above or below this. This would be reviewed to assess whether leaseholder heating charges should be apportioned in the same way as tenants across different property sizes.

2.47 Getting a better understanding of how tenants might respond to heat metering

There was a lack of robust data predicting how tenants would respond to the installation of heat meters in terms of reducing hours of heating and potentially under-heating their homes. It was recommended that qualitative research be carried out over the summer to ask different groups of residents, such as those in work and those at home during the day, how they would use their heating following the introduction of heat metering.

2.48 Continually reviewing the benefits of heat metering on a scheme by scheme basis

The benefits of heat metering varied significantly in different situations, for example residents in well insulated blocks were likely to see bigger savings, and savings would go up as the cost of fuel increased because the differential between fixed costs and variable costs would grow. Costs of heat meters could reduce over time as their use became more common, whereas metering would not be recommended in blocks with a construction type that was prone to condensation. It was recommended that the option of installing heat meters be reviewed on a scheme by scheme basis as new communal heating systems are installed, and that residents were involved in the decision through the major works consultation process. The decision about whether to install meters would be based on the availability of funding, cost of meter installation, likely cost savings for residents, like impact on vulnerable residents, and the ability to protect the building from damp and condensation following meter installation.

2.49 Changing the policy on compensation following loss of heating service

Compensation was currently applied automatically to tenants' rents account when there has been a loss of communal heating service for three days or more. Tenants did not have to apply for this - the payment was applied automatically applied. The payment was calculated based on the daily charge for communal heating (e.g. three days loss of heating would result in three days' cost being compensated). It was recommended that the policy be amended to provide compensation following a two day loss of heating and that the compensation should be increased in line with the increased cost of electric heating compared to communal heating.

2.50 Providing more clarity about what would happen if the cost of heating had been lower than the amount charged to tenants at the end of the year

The tenant communal heating account was a ring-fenced account. This meant that the money that tenants paid in for their heating could only be used to pay for the cost of communal heating. The council was committed to setting heating charges that were affordable to residents and as far as possible were protected from big fluctuations in energy

prices. Charges were set based on an estimate of the cost of gas for the coming year. Sometimes, as has happened in 2014/15, gas actually cost less than and therefore there was a surplus in the communal heating account. Any surpluses at the end of any year would either be refunded to tenants or rolled forward to offset future increases in the cost of gas. In deciding between these options the council would consider whether fuel costs were likely to increase significantly in the coming years and whether the refund would be significant to warrant the administration around this.

### **3. Conclusion**

The committee heard evidence about communal heating schemes in the borough, the benefits and drawbacks of these and the work which was taking place to improve the heating provision for residents. The committee hoped the recommendations of the scrutiny review would further improve heating provision for residents.