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9 July 2025

Dear Heat Network Regulation team,

Heat networks regulation: fair pricing protections

I am writing to you on behalf of Metropolitan UK, part of the BUUK Infrastructure Group of companies (BUUK), in response to the joint Ofgem consultation [Heat networks regulation: fair pricing protections](#) which was published on the 30th April 2025. This letter presents a high-level summary of our views on the proposals set out in the consultation and Appendix 1 then responds in turn to each of the questions that you raised. I can confirm this response is not confidential and can be published on the Ofgem website.

Overview of our business

BUUK is the leading UK multi-utility infrastructure investor, working across Great Britain and competing against incumbent utility companies. We have provided several million utility connections, serving customers across tens of thousands of discrete networks and six essential utilities; we therefore have considerable experience across multiple utility industries. Today, we operate in the heat networks sector under our Metropolitan brand and can offer a unique perspective as an investor and operator of heat systems and an experienced owner operator of last mile utility distribution systems in five other regulated utilities.

Summary of our views on proposals to implement consumer protections

Although we do support the overall intent of the proposals, as currently drafted, we do not think they strike an appropriate balance between securing effective short term price protection, fair pricing for consumers and facilitating future growth of the market in line with government aspirations and longer-term customer interests.

There are already parts of the Heat Network market which, without any required subsidy, are facilitating government ambitions to achieve Clean Power by 2030, supporting developers in building 1.5m new homes and helping to decarbonise heat. We are concerned that implementation of Ofgem's proposed pricing framework in its current form will overlook the value provided by this part of the market, and risks damaging its development. We think it is important that this value is not lost and that the market should therefore be segmented recognising the basic characteristics of future project types. This would reflect both the

consumer risk profile associated with the project as well as the different investment and delivery challenges. We consider the following three segments to be appropriate.

1. Heat networks on new housing and mixed-use developments.
2. Heat networks in zones that will retrofit existing buildings.
3. Heat networks outside of zones that will retrofit existing buildings.

Given the different characteristics and market forces operating on the three segments above, we believe they would provide a more appropriate foundation for tailoring consumer price protection and ensuring proportionate regulation.

To be clear, we think such an approach would provide an appropriate framework within which to consider the development of targeted arrangements but that the provisions applicable to each segment should be broadly the same. The only area where we think there may be value from differential regulation, in the form of enhanced data reporting and associated monitoring, is in relation to legacy heat networks where we believe the scope for consumer detriment is likely to be higher.

Proposed benchmarking techniques

We recognise that the protection of customers is an important concern to Ofgem, as it is to BUUK. However, our view is that with a new market and unfamiliar technology, customers will simply want assurance that the price they are paying for a heat network service is aligned with, or cheaper than, other available low carbon heating technologies; rather than requiring the application of three in-depth benchmarking approaches.

We believe the use of external benchmarking against one appropriate counterfactual will facilitate these objective comparisons and provide a pricing framework that is easy for customers to understand / engage with. We think the other more intrusive benchmarking techniques should only be used where external benchmarking indicates that the charges for a given heat network entity are higher than prices of other alternative low carbon technologies.

Such an approach will offer effective protection for customers while also providing flexibility to heat network entities to set charges at an appropriate level, recognising that clarity on pricing levels is still evolving. Given the relative market immaturity, and associated risk that heat network entities face in a nascent market, we think there is a strong rationale for establishing a pricing framework that allows them to earn a fair return. The framework should also facilitate evolution of the market without unnecessary intervention that could deter investment and innovation.

We note that similar conditions were observed in the Independent Gas Transporter (IGT) market in the early 2000s and Ofgem recognised that, to effectively protect customers, there was a need to benchmark IGT prices to the counterfactual incumbent service offering. This was successfully implemented via a relative price control which balanced the need to protect customers while successfully stimulating growth in the market; with IGTs now providing around 80% of last-mile networks as a result of the value they generate for customers.

We believe the flexibility provided by an external benchmarking approach, that is pegged to the counterfactual, will be critical for effective price discovery and envisage that this will lead

to better pricing outcomes for customers over the longer term. In this respect, in the absence of unnecessary restrictions that could distort the market, effective price discovery will enable the market to settle at a fair and efficient price as it matures. Avoiding the more intrusive benchmarking approaches, would also make us, and other investors, more likely to continue to engage in the market.

In addition, we note that external benchmarking is an approach that has already been adopted in the heat network market via the Heat Trust Heat Cost calculator. Experience has shown that this mechanism is easy to explain to customers, developers and investors and we believe that, if implemented correctly, it will support transparency, accountability, and decarbonisation goals without excessive complexity or misinterpretation. We recognise that the Heat Cost calculator is currently focused on the new build market, and based on a gas comparator which would need to be revised to reflect a low carbon counterfactual, but believe it provides a good proven starting point for the industry to build on further.

Proposed profitability analysis

We are very concerned about Ofgem's proposal in the consultation to "monitor profitability across the sector, and...investigate cases where profit levels are higher than what we would expect". We do not think it is the role of the regulator to directly monitor the short-term profitability of businesses operating within a regulated market; indeed, this type of analysis is not routinely carried out in any other regulated market. Regulators usually influence markets by either capping prices, or by capping returns on capital. Both approaches provide incentives for operators to perform efficiently, regulating profits removes incentives for efficient operation.

In an emerging market, where there is a desire to facilitate growth, incentives should exist for entities to earn a reasonable return if they successfully outperform specified benchmarks. This is particularly applicable in an immature market where the risks of a return on investment are relatively higher and where Ofgem is seeking to encourage innovation which comes with inherent risks of its own. In fact, as noted above, Ofgem's adoption of a more light-touch relative price control approach to the regulation of the independent gas and electricity network markets in early 2000s demonstrably helped to facilitate their growth in support of consumers. We recognise that there may be a rationale for greater levels of price regulation in the future, once the market is more mature and players that hold a position of dominance begin to emerge. However, we have material concerns that the use of intrusive profitability analysis at this early stage of market development could have serious detrimental impacts on the investability of the sector, existing and contracted investments and subsequently impact future growth.

I hope that this letter is helpful. If you would like to discuss any of the issues I have raised, please contact me via email (keith.hutton@bu-uk.co.uk) or phone (07970 730688).

Kind regards,



Keith Hutton
Group Regulation Director

Appendix 1: Responses to specific questions posed in the consultation

Fair Pricing Framework

Q1. Have we identified the right set of fair pricing consumer objective, principles and outcomes and are these properly defined? If you disagree with this proposal, please specify what changes you would like to see and provide a justification.

We are supportive of the development and application of principles that are intended to facilitate the overall consumer objective of ensuring that consumers pay prices that are fair and not disproportionate. While we agree with the proposed inclusion of several of the principles, we are concerned that the current mix does not strike the right balance between protecting consumers and maintaining the conditions needed for sustainable investment. In particular, we support strong consumer protections and believe they are essential to building confidence and growing the sector. However, this must be done in a way that does not impose premature or overly intrusive profit controls that could undermine the sector's ability to attract private investment.

In our view, a fair, transparent and easily understood pricing framework is one that benchmarks heat network prices against the cost of alternative technologies (external benchmarking). Specifically, we consider that the unsubsidised installation and running costs of an individual heat pump for each equivalent dwelling should form the primary benchmark. If the prices of a given heat network fall below this threshold, they should be considered fair but, if they exceed this benchmark, then additional cost scrutiny or benchmarking (as proposed in the consultation) may be appropriate. Such an approach will offer effective protection for customers while also providing flexibility to heat network entities to set charges at an appropriate level, recognising that clarity on pricing levels is still evolving and that if they are set too low this will deter investment. Our recommended approach will also drive competition, as competing providers will seek to better benchmark heat charges in their bids for heat network opportunities.

While we fully support strong consumer protections as a core principle of the framework, we are concerned that the current suite of proposed principles place too much emphasis on profit control as a means to achieve it, without sufficiently considering the impact this could have on investment and long term market growth. We therefore think several changes are required to the overarching principles.

- **Cost reflectivity:** We support cost reflectivity as a foundational concept common to other regulated sectors. However, we believe this principle must be grounded in an external benchmark. In our view, this benchmark should be the unsubsidised installation and running costs of an individual heat pump for an equivalent dwelling. This would build on the approach that has already been adopted in the heat network market via the Heat Trust Heat Cost calculator. Experience has shown that this mechanism is easy to explain to customers, developers and investors and we believe that, if implemented correctly, it will support transparency, accountability, and decarbonisation goals without excessive complexity or misinterpretation. We recognise that the Heat Cost calculator is currently focused on the new build market, and based on a gas comparator which would need to be revised to reflect a low carbon counterfactual, but believe it provides a good proven starting point for the industry to build on. More generally, we think operators and suppliers should be permitted to recover efficiently incurred costs and a reasonable return while customers should be charged based on the quantum of services they use.

- **Cost efficiency:** We consider this principle to be closely aligned to cost reflectivity so, while we support it's inclusion, we think that it would make sense to merge this principle with cost reflectivity. As outlined above, operators and suppliers should only be permitted to recoup efficient costs and customers should be protected from increased costs where these are the result of mismanaged spend or inefficient network operation.
- **Fair and reasonable returns:** While ensuring good consumer outcomes is essential, we are concerned by the implicit assumption that the regulator should determine what level of return is "fair and reasonable" in a nascent and high-risk market. Rather than attempting to find acceptable margins, we believe the framework should remain focused on observed consumer outcomes. In this respect, there will be value in Ofgem remaining appraised on whether consumers are receiving reasonable appropriately-benchmarked prices, a high-quality service, necessary payments under the guaranteed standards of performance etc. If these consumer-facing outcomes are being met, the specific returns earned by heat networks should not be the focus of regulatory scrutiny. An approach more focused on the consumer outcomes observed would facilitate investor confidence, encourage innovation and support the pace and scale of delivery needed to meet government heat decarbonisation targets.
- **Affordability:** In the current context of increasing utility bills that are likely to rise further in the future, affordability should be a key consideration for any pricing framework, including ways in which suppliers can support their end customers in the form of payment flexibility and transparent billing.
- **Regulatory control:** While we agree with this principle, we do not think this is specific to the pricing framework but rather is an overarching principle that both heat network operators and suppliers should conform to as part of the overall regulatory framework. We therefore think this should be a more generic expectation that pervades all aspects of the framework rather than being called out specifically in the pricing provisions.
- **Price transparency:** We strongly support the inclusion of this principle as it is critical that customers have clarity about the services they are receiving and the relative prices they are paying. However, we also think it is critical that transparency translates into the provision of targeted information that enables customers to effectively engage and understand the prices they are paying in the context of the service they are receiving. For example, the current heat prices our customers pay includes fully comprehensive maintenance and lifetime replacement guarantees on elements such as their Heat Interface Units (HIUs) and this is in contrast with traditional gas heating where customers pay for their energy and their gas boiler separately. Linked to this, we think that transparency should help to provide assurance to end customers on whether the prices they are paying are reasonable given the current market context and availability of low-cost low carbon-alternatives. We would therefore suggest this principle should be expanded to 'price transparency and assurance'.

If Ofgem were to take these suggestions into account, it would lead to a consolidated list of four principles, and we would like to propose the addition of a further overarching principle which would result in the following list of five principles.

1. **Cost reflectivity and efficiency:** A merger of the first two principles proposed by Ofgem.
2. **Desirable customer outcomes:** A refocusing of the third principle proposed by Ofgem;
3. **Affordability:** Aligned to the fourth principle proposed by Ofgem;
4. **Price transparency and assurance:** Aligned to the sixth principle proposed by Ofgem and extended to reflect the importance of providing effective assurance to end customers.
5. **Supporting Growth:** We believe that it is critically important that heat network operators and suppliers can earn a return that reflects the risk they are taking when investing in the heat network market. We believe that this will be fundamental to facilitating the

anticipated levels of growth of the heat network market that will be required to support delivery against the government's wider environmental targets. We would therefore suggest that a further principle should be included which focuses on **'supporting growth'**. The rationale for inclusion of this principle would be to help avoid the development of unnecessarily intrusive pricing arrangements that could inadvertently deter market entry by reducing opportunities for new entrants to earn a reasonable return. It would also secure alignment with the proposed industry outcome put forward in the consultation; that the framework does not discourage growth of the heat network sector.

Taken together, we think these principles would ensure effective protection for customers while also supporting the development of a competitive and investable heat network market. Over time, we anticipate that price will drive the levels of competition observed in the market. Where price is set at a reasonable level, this will enable competitive pressures to flourish which will help to drive prices down as the market matures. This will create incentives for market players to identify innovative approaches, including the implementation of new technologies, which will enable them to more effectively compete on price. Ultimately, this will help to reduce the level of government subsidy required to make heat networks economically viable, perhaps approaching zero in the future. We note that these conditions already exist in the new build sector and that, given financial support available from the developer community, there is no need for government subsidy.

Q2. Do you agree with our proposals to develop the fair pricing guidance in relation to the principles (please note that questions on cost allocation proposals, including guidance, are asked separately under Chapter 3: Cost allocation). In particular:

a) have we identified the right areas to be covered by the guidance implementing the fair pricing principles (see paragraph 2.53 for a summary of the areas we are proposing to develop in guidance under each principle)? If you disagree with this proposal or think other areas should also be included, please specify what changes you would like to see and provide a justification.

We welcome proposals to develop guidance with respect to interpretation of the agreed principles to ensure that there is clarity across the industry in terms of the high-level expectations that Ofgem has in terms of company compliance. We think that in general the proposals that Ofgem has included about the areas that the guidance should cover are broadly sensible. However, we would make the following observations.

- As outlined above in our response to question 1, we think the principle of cost reflectivity should be expanded to include cost efficiency and therefore the relevant guidance in this area should be subsumed under the first principle.
- We note the reference within the discussion of guidance regarding 'fair and reasonable returns' to Ofgem's intent to "monitor profitability across the sector, and...investigate cases where profit levels are higher than what we would expect". We strongly oppose proposals for profitability monitoring or benchmarking by Ofgem as we do not think the regulator should monitor the profitability of businesses operating in a regulated market.
- While there is a rationale for monitoring financeability and affordability given Ofgem's duties, this should not stretch into the issuance of judgements around whether the returns that companies earn are appropriate. Indeed, profit benchmarking is not carried out in the more mature regulated utility network sectors and in an emerging market, where there is a desire to facilitate growth, incentives should exist for entities to earn a reasonable return if they successfully outperform pre-set benchmarks. We think profit

benchmarking is particularly inappropriate for the nascent heat network market, which is relatively immature, carries higher investment risk and requires innovation to meet decarbonisation targets. We have concerns that, if Ofgem progresses proposals around profitability and EBIT analysis, this could serious detrimental impacts on the investability of the sector, deterring long-term capital and undermining future growth.

- With respect to the guidance regarding 'fair and reasonable returns' the consultation also refers to the potential to "have regard to how heat networks' profit levels compare to an estimate of the cost of debt and equity in the market or the "weighted average cost of capital"". We would urge against this kind of analysis, given that it has been inherently controversial within other price-controlled utility markets which are more mature and for which the WACC is therefore arguably more predictable. We also note that analysis of this type would inevitably lead to comparisons of the WACC agreed within price controls for respective utility markets and would likely make any assessment of the WACC in heat network markets look disproportionately high. However, there is a clear rationale for the achievement of a relatively higher return in heat networks given the relative nascency of the market and the associated higher levels of risk. In this respect, there will not be any guarantee of demand for heat network entities as technological advancements and price fluctuations are likely to emerge in the future and, as far as possible, customers should be permitted to choose which provider they would like to use.
- We note that the consultation refers to the potential for businesses to make use of tools such a flexible payment plans to customers in instances where shock bills might arise. However, we think that, in line with established arrangements for financially-vulnerable customers in other regulated industries, there should be an expectation that companies will offer targeted services to support these customers in the heat network sector. This could take the form of debt advice, flexibility in the frequency of payment and / or the use of debt matching schemes to support customers in finding their way out of debt.
- As outlined above in our response to question 1, we do not think that the inclusion of a principle regarding 'regulatory control' that is specific to heat network pricing is appropriate; rather, we think this should be more of a holistic principle applicable to the overall heat network market framework.
- We agree that transparency is a critical principle that companies should adhere to within a heat network pricing framework. However, in line with our response to Question 1 above, transparency should translate into the provision of targeted information that enables customers to effectively engage and understand the prices they are paying in the context of the service they are receiving. It should not be considered a reason for inundating customers with vast amounts of information that they are unlikely to be able to engage with and which could have the perverse effect of creating more confusion.
- As outlined above, in our response to question 1, we think that the provision of transparency should also provide assurance to end customers around whether the prices they are paying are reasonable given the current market context and availability of low-cost low carbon-alternatives. We would therefore expect to see some guidance from Ofgem about how this assurance could be facilitated for end customers.
- In line with our response to question 1 above, we think an additional principle around 'supporting growth' should be included. Associated guidance in this area should be focused on the commitments to be made by Ofgem in terms of avoiding the creation of unnecessarily complex and involved pricing arrangements that could inadvertently deter market entry by creating disproportionate regulatory burdens.

We note that the process of developing this guidance needs strong industry input to make sure it is grounded within real world operational considerations. For example, cost allocation guidance must reflect how different business models structure their charges, allow for competitive offerings within the market and instead of a single textbook view.

b) Do you agree with the specific proposals to develop each of these areas in guidance? If you disagree, please specify what changes you would like to see and provide a justification.

Please see our response to Question 2a above.

Q3. Do you agree with the proposed 'fairness test'? In particular:

a) Do you agree with the high-level features of the fairness test (principle based, reasonableness, case-by-case basis, and objectivity)?

We do not believe that the current proposal of the additional “fairness” of heat network prices is necessary with the application of an initial external benchmark test. In this respect, if a heat network’s prices are below the unsubsidised cost of installing and running an individual heat pump for an equivalent dwelling, those prices should automatically be deemed fair, with no need for Ofgem to apply further tests or investigations.

We understand and support the rationale for a ‘fairness test’ as a secondary safeguard, provided it is used appropriately and sparingly. However, from the consultation, we are unclear how this test will be used and when it would be applied. For example, Figure 1 suggests that it will be used as part of Ofgem’s ongoing monitoring, but it is not clear whether this will be a standard test applicable to all heat network operators or whether it would be used in cases where Ofgem had reason to believe that the prices being charged by a particular operator / supplier were unfair. It is also unclear how this ‘fairness test’ will operate alongside the suite of other tools that Ofgem presents in Figure 1 e.g. benchmarking, profitability assessments and price investigations.

In addition, we have concerns around the subjectivity of any resulting ‘fairness test’. In this respect, reference is made to the concept of “reasonableness” but it is unclear how this will be interpreted and what it will mean in practice. We believe the application of this tool should reflect the context to which it is being applied (e.g. new build networks, legacy networks, geography of the network and the fuel mix) and that this should help to inform the overall assessment of reasonableness. However, in line with our response to Question 1, we have concerns that an ambiguous definition that is open to interpretation could hinder investment due to risks created as a result of uncertainty around how the fairness test will be applied. Finally, we are concerned that the test could become a backdoor route to setting a margin that is acceptable in the eyes of the regulator, which would contribute to additional investment uncertainty in the sector.

b) Do you agree with our proposals to implement the fairness test discussed in Appendix 1: Fairness test?

Please see our response to question 3a above.

Q4. Does the revised authorisation condition, ‘fair pricing’, reflect the policy intent?

Our assumption is that the revised authorisation condition ‘fair pricing’ is represented by the italicised text presented in paragraph 2.8. We note that the authorisation condition itself is relatively high level and welcome this approach as, with the support of the guidance, this will allow the approach to evolve over time as the market matures. However, it does mean that a significant amount of emphasis will be placed on the guidance in terms of ensuring that there is collective clarity about how the ‘fair pricing’ condition will be interpreted and therefore it will be critical that the guidance is clear and unambiguous. We look forward to the opportunity to engage on the content of this guidance.

Q5. In relation to market segmentation (please note that we are asking in relation to the considerations discussed in paragraphs 2.58-2.61, segmentation considerations in relation to price benchmarking are considered under Chapter 4: Price comparison and benchmarking methods):

a) Have we identified the right characteristics for market segmentation, and are these correctly defined?

We note that the consultation includes further proposals related to segmentation of the market to enable comparator benchmarking to be carried out in paragraphs 4.27 to 4.48. While we do not support the blanket use of the proposed comparator benchmarking, we recognise that it could be used for secondary analysis in cases where external benchmarking highlights that a given heat network is an outlier; with prices exceeding the benchmark. In this instance, we think that segmentation or grouping based on the basic characteristics of the project type should be used, which reflects both consumer risk profiles and different investment and delivery challenges. Specifically, we suggest the following three categories, which are detailed further in our response to Question 15:

4. Heat networks on new housing and mixed-use developments.
5. Heat networks in zones that will retrofit existing buildings.
6. Heat networks outside of zones that will retrofit existing buildings.

These segments are distinct in terms of commercial structure, capital intensity, expected consumer outcomes and the role of government support required. In this respect, we note that we are already providing a heat network offering to housebuilders on new housing and mixed-use developments which is compliant with the requirements of the future homes standard and does not require any government subsidy. These offerings are provided to our customers at a competitive market rate, via a price guarantee that ensures that customers will not pay more than the relevant low carbon counterfactual. Recognising the fundamental differences between the three segments above, we believe they would provide a more appropriate foundation for tailoring consumer price protection and ensuring proportionate regulation. A segmentation model based on project type, as we propose, is both simple and rooted in real-world commercial and regulatory dynamics of heat networks. It offers a more coherent basis for differentiating the benchmarking approach that is used.

Our understanding is that the market segmentation approach discussed in paragraphs 2.58 to 2.61 of the consultation is different to the grouping approach set out in paragraphs 4.27 to 4.48. In this respect, this segmentation approach is presented with the intent of categorising the market into respective groups for the purposes of ongoing data collection and associated regulatory monitoring. On the surface, the proposed categories within the consultation seem sensible. However, attempting to categorise heat networks based on, for example, size,

metering approach, commercial set up, heat source or network type, could be complex, open to interpretation and time consuming given the thousands of heat networks currently in operation. As such, we believe that a clear delineation based on an easily-identifiable parameter would be more practical, easier to implement and more widely understood by affected industry parties, while still ensuring the proportionate data collection / monitoring.

In the first instance, we think it is worth considering the underpinning rationale that would apply if Ofgem were to seek to collect proportionately more data from certain networks in order to complete proportionately more monitoring; and how this might translate into discernible characteristics. Our assumption is that Ofgem would likely want to capture more information from network operators / suppliers that were inefficient, underperforming and, as a result, likely delivering a low-quality but potentially costly service to end customers.

We expect a key driver of these types of performance issues to be the extent to which individual networks are compliant with the requirements of CP1. And, given that CP1 is a cornerstone of the specifications underpinning the heat network technical assurance standards (HNTAS), we think that achievement of HNTAS accreditation would be an appropriate characteristic to determine the extent to which individual heat networks should be subject to additional regulatory scrutiny. If networks were to fail the HNTAS, and required significant retrofitting to attain compliance, it would be logical that these parties should provide additional data to Ofgem to facilitate further performance monitoring. Such an approach would not only help to ensure regulatory focus was targeted in areas where there were most concerns about unfavourable customer outcomes, but it would also facilitate the establishment of an objective, easily applicable segmentation that would evolve over time.

Finally, we note that there will be significant differences between the markets that operate within and outside of heat network zones. In this respect, we would expect Ofgem to engage in greater scrutiny of effective monopolies that are awarded exclusivity within zones given that they will not be exposed to natural competitive pressures. We believe the establishment of a monopoly introduces a greater risk of inefficiencies within the network and therefore provides a rationale for more detailed reporting. In addition, we note that in some cases customers within heat network zones will be mandated to connect and therefore Ofgem will need to be satisfied that, in the absence of choice, affected customers are effectively provided with a good service that reflects prices that are fair and not disproportionate.

b) Do you agree with the segmentation approach discussed for each of these characteristics?

Please see our response to Question 5a above.

Q6. Of the information listed in Table 3 below, what do heat networks already regularly collect and can be easily reported?

Metropolitan already track a lot of the information that Ofgem is proposing to require heat network operators / suppliers to provide, for the purposes of internal performance reviews as well as to meet the monitoring requirements of the Heat trust scheme. The suite of information proposed seems sensible and we anticipate that most newer heat network operators / suppliers should already report on this data, for example, consumption data, tariffs and basic operation KPIs. We are therefore largely supportive of the proposed metrics.

Having said that we note the proposed frequency of reporting, and in particular the potential for Ofgem to collect data on prices and charges at quarterly intervals. At present, we are only permitted to make changes to our prices once a year and we therefore question the value of providing quarterly data given that our pricing and charges are very unlikely to change within this timeframe. In fact, we note that in most other regulated utility industries, companies are only required to provide the regulator with tariff / pricing information on an annual basis, and we therefore think that the provision of annual data would be sufficient for the purposes of regulatory monitoring. Indeed, requiring more frequent reporting, on a six-monthly or even quarterly basis, would create an additional regulatory burden for heat network suppliers / operators and associated increases in costs; for no defined tangible benefit.

We also suspect that these proposals have been heavily influenced by the findings of the CMA Market Study (2018), which focused primarily on legacy networks. While this approach may be appropriate when applied to older networks that pre-date consistent technical and commercial standards, it is not appropriate to apply the same intensity of reporting to newer networks that are able to demonstrate compliance with these standards. These types of networks will be designed, built and operated under a much more robust regulatory regime from the outset, including mandatory consumer protections and technical assurance (under HNTAS) and should not face the same scrutiny designed for legacy performance issues.

We note the proposal to collect data on EBIT margins and do not think the reporting of this data within the heat network sector would be appropriate. As set out in our response to question 2a, EBIT benchmarking of this nature is not carried out in other regulated sectors, and we strongly believe that it should not be the role of the regulator to monitor the profitability of businesses operating within a regulated market. While there is a clear rationale for monitoring financeability and affordability given Ofgem's duties, this should not stretch into the issuance of judgements around whether the returns that companies earn are appropriate. We think this is particularly applicable in a relatively immature market where the risks of a return on investment are relatively higher and where Ofgem is seeking to encourage innovation which comes with inherent risks of its own. In this respect, in the early years of a project, investors will likely incur significant losses, but these are offset against the returns it will earn in the future. In this scenario, the use of profitability analysis could indicate a failing company in the early years of investment as well as introducing the risk of a potential profit intervention once the investment begins to mature and make returns. We have material concerns that, if Ofgem continues to progress proposals around profitability and EBIT analysis, this could serious detrimental impacts on the investability of the sector and subsequently impact future levels of growth.

Q7. Of the information listed in Table 3 below, which items would be more challenging for heat networks to report?

We note that the list of data items specified in Table 3 is extensive and involves the reporting of wide-ranging information to the regulator to a relatively high collection frequency. This contrasts with the reporting we regularly provide to the Heat Trust, which largely comprises customer numbers. Given the significant increase in the volume of data that companies must report, it is important to acknowledge that the collation of this data will materially increase administrative burdens, which will ultimately lead to increased costs for customers.

We have set out our thoughts on the proposed 'data type' categories in turn below.

- **Charges:** It should be relatively straightforward to report this data although, in line with our response to Question 6 above, we consider quarterly reporting to be excessive as charges will not change within this timeframe. We consider annual reporting to be most appropriate or even six-monthly reporting if more frequent data was deemed necessary.
- **Prices:** we are unclear of the definition used for 'reference prices' and would welcome clarification on how to interpret this requirement.
- **Cost allocation:** We do not agree with the amount of detailed information that Ofgem proposes should be provided in terms of cost allocation and note that this seems particularly intrusive compared to other utility sectors. Rather, we would expect the approach to require heat networks to share a statement with Ofgem on how they form their tariffs; with updates only necessary following any material changes.
- **Cost drivers (1):** We do not agree with the inclusion of any data requirements regarding efficiency monitoring, as this would be a duplication of the information we will already be required to provide under the heat network technical assurance scheme (HNTAS). We think that any data relating to network efficiency should therefore be removed; with the focus on collecting data relevant to economic regulation and consumer outcomes.
- **Cost drivers (2):** Although we do not have concerns with any of the data items included in this list, we would welcome clarification on the definition of 'type of network' and 'network length' as well as the rationale for their inclusion.
- **Financial data:** In line with our responses to the questions about Profitability Analysis (Question 23 to 26) we strongly object to the collection of EBIT data at this stage of heat network market development. Given the relative nascency of the market, we think the market should be given space for price discovery to take place and that the sector should have time to mature before any such measures are considered.

Q8. Of the cost drivers listed in Table 7 (in Appendix 3), which items would be more challenging for heat networks to report?

In line with our response to Question 7 above, we note that the list of data items specified in Table 7 is extensive and involves the reporting of wide-ranging information to the regulator. While much of this data would be relatively straightforward to identify, the collation of relevant records will significantly increase administrative burdens, which will ultimately lead to increased costs for customers. We outline in the bullets below which of the data items we might encounter problems with and how we think these could be addressed.

- **Network generation:** We would welcome clarity on what constitutes heat network generations (3rd, 4th or 5th) as there is not currently a standard industry interpretation.
- **Annual heat delivered to the network or produced at the energy centre:** Any proposed cost drivers relating to heat consumption or heat produced will be covered under HNTAS, as we will have to report our meters points alongside heat consumption.
- **Other efficiency measures:** We note that complex calculations underpin the derivation of heat losses and that the provisions of the HNTAS are designed to do this.
- **Bad debt:** We question the rationale behind Ofgem wanting companies to report on bad debt as we do not think this is appropriate data for the regulator to collect. We would appreciate further detail on the intent underpinning this requirement
- **Load type:** This data would be difficult for us to collate.
- **Age and type of properties supplied:** This data would be difficult for us to collate as we do not always have access to this type of information e.g. example size, EPC rating.

- **Housing tenure:** This data would be difficult for us to collate as we do not always have access to the information; while we might be able to identify where customers are in social housing, we would not know whether a property was owner-occupied or rented.
- **Funding received or costs not passed on:** Collation of this data could be difficult depending on the commercial model of the network. For example, if the owner of the network assets is different to the operator of the network, questions may arise about where responsibility for this reporting would lay.

Q9. Should certain types of heat networks have more limited data reporting requirements? If so, which heat networks should these reduced requirements apply to, and what data should they be exempt from reporting?

We believe that there should be differences in reporting based on segmentation of the market, in line with the approach we presented in our response to Question 5. This is where proportionality could be applied with Ofgem's focus on collecting data in segments where real consumer risks or pricing issues exist instead of creating a blanket requirement across the board. As outlined above in our response to Question 5, we think that the achievement of HNTAS accreditation would be an appropriate characteristic to determine the extent to which individual heat networks should be subject to additional regulatory scrutiny. If networks were to fail the HNTAS, and required significant retrofitting to attain compliance, it would be logical that these parties should provide additional data to Ofgem to facilitate further performance monitoring. Such an approach would not only help to ensure regulatory focus was targeted in areas where there were most concerns about unfavourable customer outcomes, but it would also facilitate the establishment of an objective, easily applicable segmentation.

Cost allocation

Q10. Do you agree with our proposed prescriptive rule that GSOP payments, compensations, fines, penalties and other redress provided to consumers should not be passed through to customers?

We agree with this proposal as it aligns with good practice in other utilities. Where a supplier has failed to meet service standards, it's reasonable that the costs should sit with them rather than the consumer.

However, we would welcome further clarification from Ofgem on how this will be enforced in practice. For example, if fines are paid at group level or settled via insurance, it may not be clear how (or whether) they've been passed through indirectly.

Q11. Do you agree with the draft best practice guidance provided? Is there anything that should be added? Should any of the best practice guidance be strengthened to prescriptive rules?

We broadly support the use of guidance as a starting point to help inform the approach that heat network operators / suppliers take to cost allocation, and agree that guidance rather than prescriptive rules are most appropriate at this stage. We believe that such an approach will provide heat network operators and suppliers with the required flexibility to manage cost recovery models in a way that reflects their commercial setup and contractual obligations.

We note that an area in which further guidance may be required is in relation to the treatment of shared or portfolio costs, for example, customer service centres serving multiple networks, or group wide metering infrastructure. These do not typically allocate neatly on a

per-network basis and we think there would be benefit in providing guidance on this. More generally, we note that provisions to support effective cost allocation are well-established in other regulated utilities and therefore consider there would be benefit in learning from best practice in other sectors.

Q12. Do you think that the best practice approach to cost allocation should differ for different types of heat networks, or different types of suppliers? If so, for which types and how?

In general we think that greater benefit is likely to be attained where there is consistency in the approach that heat network operators / suppliers take to cost allocation. We expect that this will help Ofgem to compare costs across different heat networks on more of a like-for-like basis; although recognising that there will always be some differences in the approach that individual heat network parties take. In this respect, in practice there may be variation in the approach that respective heat networks take to cost allocation due to different heat network set ups resulting from network size and complexity, ownership models and whether the operator runs a single or multiple heat networks. For example, our business model and, by extension, cost allocation model is based on an integrated highly efficient Multi Utility solution which may result in a different cost allocation methodology compared to competitors that specialise in the provision of heat networks. If we were to see convergence of costs across competitors this could, in fact, trigger concerns from a competition point of view.

As outlined in our response to Question 5 above, for the purposes of cost allocation, we think it would make sense to segment the heat network market using the basic project type characteristics, to reflect both consumer risk profiles and different investment / delivery challenges. We suggest the following three categories, which are explained further in our response to Question 15:

1. Heat networks on new housing and mixed-use developments.
2. Heat networks in zones that will retrofit existing buildings.
3. Heat networks outside of zones that will retrofit existing buildings.

These segments are distinct in terms of commercial structure, capital intensity, expected consumer outcomes and the role of government support required. Recognising the differences between these market segments, we believe there should be some flexibility in the cost allocation approach to recognise the realities of implementation. This would also help to avoid situations in which regulatory challenges are regularly initiated to address minor concerns over cost allocation, particularly between standing the charge and unit rate.

Q13. Does the authorisation condition, 'cost allocation', reflect the policy intent?

We note that the draft Authorisation Condition is high level but agree that it does largely reflect the policy intent. However, we note that it would make sense to maintain consistency between the authorisation conditions as far as possible and therefore think it would be beneficial to mirror some of the wording in the draft authorisation condition on 'Fair pricing'. In this respect, we think the following provisions, and associated wording, are equally applicable to the development of guidance regarding cost allocation.

X.2. This authorisation condition shall be interpreted in accordance with guidance published by the Authority.

X.3. Before this general authorisation condition [X] comes into force, the Authority shall publish the guidance referred to in paragraph [X.2].

X.5. Before the Authority publishes the guidance referred to in paragraph [X.2] the Authority shall consult:

X.5.1. authorised persons; and

X.5.2. such other persons as the Authority thinks it appropriate to consult.

X.6. The Authority may from time to time revise the guidance referred to in paragraph [X.2] and before issuing any such revised guidance the Authority shall consult such persons as specified in paragraph [X.5] setting out the text of, and the reasons for, the proposed revisions.

Q14. What other feedback do you have on the proposed approach to cost allocation?

We do not think that cost allocation guidance, regarding how to split costs between standing charges and unit rates, should be prescriptive. In our experience, consumers are generally more sensitive to standing charges, which is why some operators / suppliers choose to allocate more costs into the unit rate; this can still be a legitimate, cost-reflective approach.

We would also note the relationship between the construct of tariffs, and the resulting impact this can have on consumption including implications for energy efficiency. For example if disproportionate costs are allocated into standing charges, this will dampen incentives towards energy efficiency as consumers will not be subject to the material price increases that might otherwise curtail their consumption. Such approaches to cost allocation would, in our view, go against wider policy aimed at demand and carbon reductions.

In line with our response to question 13 above, we think that Ofgem should facilitate further engagement with industry to refine the cost allocation guidance reflecting both the realities of the market and established best practices in other regulated utility sectors.

Price comparison and benchmarking methods

Q15. Do you agree with our proposed approach for defining heat network prices in a comparable way? Are there any other ways to define price that we should consider?

When considering options for price comparison and benchmarking within the heat network market framework, we think it is important to first clarify the outcomes that we are seeking to attain. The first is to ensure that end customers are protected from unfair and / or disproportionate heat network prices by providing transparency around whether charges are set at a reasonable level given other options available to heat homes and commercial buildings. The second is to ensure that, given evolving heat network market conditions, the pricing framework does not inadvertently deter private investment but instead facilitates growth by enabling heat network companies to earn a fair return for the risk that they face in the market.

To achieve both aims, we believe that the most appropriate and effective approach would be the application of external benchmarking; specifically, the unsubsidised installation and operating cost of an individual heat pump for an equivalent property. This counterfactual approach provides a clear and intuitive reference point for consumers, ensures price comparability across technologies, and enables a fair competitive dynamic between heat

networks and alternative low-carbon heating options. In our view, this benchmark would offer a robust level of consumer protection while avoiding the risks associated with more intrusive internal benchmarking, which may not reflect the cost structure or investment profile of different networks.

We note that similar conditions were observed in the emerging Independent Gas Transporter (IGT) market in the early 2000s and Ofgem recognised that, to effectively protect customers, there was a need to benchmark IGT prices to the counterfactual incumbent service offering. This was successfully implemented via a relative price control which balanced the need to protect customers while successfully stimulating growth in the market; with IGTs now providing around 80% of last-mile networks. We believe that the flexibility provided by an external benchmarking approach, that is pegged to the counterfactual, will be critical for effective price discovery and envisage that this will lead to better pricing outcomes for customers over the longer term.

In addition, we note that external benchmarking is an approach that has already been adopted in the heat network market via the Heat Trust Heat Cost calculator. Experience has shown that this mechanism is easy to explain to customers, developers and investors and we believe that, if implemented correctly, it will support transparency, accountability, and decarbonisation goals without excessive complexity or misinterpretation. We recognise that the Heat Cost calculator is currently focused on the new build market, and based on a gas comparator which would need to be revised to reflect a low carbon counterfactual, but believe it provides a good proven starting point for the industry to build on further.

Protecting end customers

We recognise the need to implement oversight arrangements with respect to the pricing of heat network services given that customers are unable to switch their provider without moving home. In line with this, and as set out in the consultation, the focus of the framework is to ensure that prices are fair and not disproportionate. There is a spectrum of ways to secure this outcome; from light-touch guidance around the level of pricing to formal price controls that determine the charges that heat network players can levy onto their end customers. In competitive utility markets, where the scope exists for customers to switch provider if they are not satisfied with the price or level of service they are receiving, there is a clear rationale for more light-touch guidance given that customers have choice. In contrast, in established markets where some utility providers occupy a regional monopoly and hold an undisputed position of dominance, it makes sense that there would be more formal price controls to protect captive customers. We acknowledge that most heat networks function as local monopolies from the perspective of end consumers. However, the degree of market power held by different networks vary significantly, particularly when comparing regulated heat zones with open market new build schemes where customers (e.g. developers) can choose who to contract with. We would therefore encourage Ofgem to adopt a proportionate approach to pricing regulation, acknowledging these differences and applying greater scrutiny where market power is most entrenched. In particular, pricing controls should be carefully tailored in designated heat zones, where statutory exclusivity may apply. At a minimum, the geographical scope of heat zones should be tightly defined to avoid needlessly limiting future competition or investment.

Within this context, we think it is important to consider the risk of customer detriment that is posed within this market and develop an approach that helps to mitigate this. We note that government recognised these issues several years and formally asked the industry to

develop provisions that would address issues of pricing and levels of service; ahead of the introduction of formal regulation. This led to the development of the Heat Trust in 2015 and the associated Cost calculator. Given the lack of customer choice in the heat network market, the cost calculator provides a transparent benchmark against which customers can assess the reasonableness of their heat network pricing.

At present the market remains relatively small and immature, with a diverse range of different providers and no clear dominant players which suggests a relatively lower risk of detriment. In addition, the market and associated price levels are still evolving and therefore the level of charging that represents an efficient price is not yet clear. We believe the characteristics of this market, share some commonalities with the Independent Gas Transporter market (IGT) that began emerging in the early 2000s and therefore think there are some lessons that could be learned from the successful relative price control (RPC) approach that Ofgem established to effectively regulate prices. This effectively mirrors the heat cost calculator tool by benchmarking IGT prices to the counterfactual incumbent service offering and offers effective protection to end customers by assuring them that they are not paying more than the lowest-cost alternative service offering.

As outlined in our response to question 5a, we note that there will be significant differences between the markets that operate within and outside of heat network zones. In this respect, we would expect Ofgem to engage in greater scrutiny of effective monopolies that are awarded exclusivity within zones given that they will not be exposed to natural competitive pressures. We believe the establishment of a monopoly introduces a greater risk of inefficiencies within the network and therefore provides a rationale for more detailed reporting. In addition, we note that in some cases customers within heat network zones will be mandated to connect and therefore Ofgem will need to be satisfied that, in the absence of choice, affected customers are effectively provided with a good service that reflects prices that are fair and not disproportionate.

Establishing conditions conducive to investment and facilitating growth

As outlined above, when designing a suitable heat network pricing framework, it is important to have regard to evolving heat network market conditions to ensure that the framework established does not inadvertently deter private investment but instead facilitates growth. This is of particular importance recognising the government target that, by 2050, 20% of heat will be supplied via heat networks; up from a base of approximately 3% today. To effectively deliver this growth, we will need rapid acceleration, private capital injection, and delivery at pace. We therefore need a framework that enables delivery and regulates it proportionately.

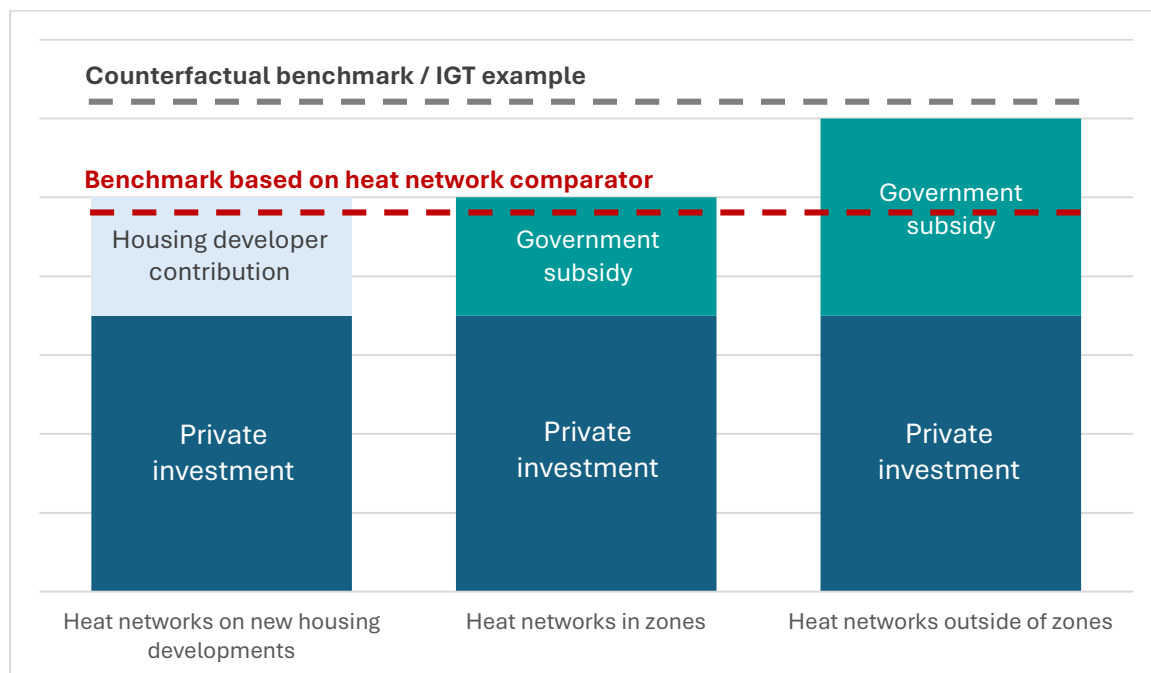
In other utility sectors where we have seen significant growth, e.g. electricity, gas and telecoms, this was not achieved through rigid, top-down control. Growth came when regulation allowed the market to develop; with liberalisation and competition acting as the key drivers. Regulation has matured and become more prescriptive as the markets matured.

Against this background, we believe it is important to be cognisant of the different types of heat networks that are operating in the market, and the specific investment conditions that are needed to stimulate their effective growth in the future. Only then, can we identify the form that the heat network pricing framework should take to facilitate these desired outcomes. We think it is possible to group future growth in the heat network market into three discrete categories.

- **Heat networks on new housing and mixed-use developments:** These types of heat networks have been / will be progressed utilising the same financial model used to make all last-mile utility networks financially viable. In this respect, the housing developers provide a defined contribution to the cost of the heat network, which secures the additional capital necessary to make the investment economically viable. Developers make these contributions recognising our ability to provide a cost-effective low carbon solution that offers an alternative to individual heat pumps for their customers, as gas-fired CHP heat networks are unlikely to be viable under the future homes standard.
- **Heat networks in zones that will retrofit existing buildings:** The investment conditions for heat networks within zones differ to those seen for new housing developments. In this respect, there is no third-party developer involved that will effectively bridge the gap needed to make the investment economically viable and therefore, in this instance, government subsidies are needed to enable heat network developers to earn a reasonable rate of return.
- **Heat networks outside of zones that will retrofit existing buildings:** The conditions in this segment of the market will largely mirror those within zones. However, recognising that zones will be designated where the conditions within that region are more suited to heat networks, it is likely that heat networks outside zones will need larger government subsidies to make them economically viable.

Figure 1 below illustrates how we foresee these conditions operating in practice.

Figure 1: Investment conditions for different types of heat networks



As illustrated in the diagram above, we expect that the proportion of financial support sourced from private investment will be broadly consistent across each of the three areas of anticipated future heat network growth. Having said that, we expect that heat networks developed primarily to retrofit existing buildings, either inside or outside of zones, will require some level of government subsidy; and likely a larger subsidy in the case of heat networks outside of zones. Comparatively, for heat networks constructed on new housing developments, we anticipate that this additional funding will be sourced from the respective

housing developers. It will therefore be important that this value is not overlooked, deterred or lost due to the regulatory framework that is established.

Implications for price comparison and benchmarking

We note that the current proposals presented in the consultation envisage the continued development and application of three different benchmarking approaches for heat networks on the basis that 'it will be beneficial to use several complementary benchmarking methods, and develop these iteratively to build an evidence base'. We are concerned that the use of three benchmarking approaches in tandem could create significant additional bureaucracy and administrative pressures within the sector. We note that the level of data required to be processed and categorised will also place significant burden on the regulator.

To facilitate and enable growth in the market, our view is that there should be a primary benchmark, which is used and applied in most cases. Our preference would be for the use of the external benchmarking which would enable the prices of individual heat network operator / suppliers to be compared to the lowest-cost alternative available in the market. Using this initial test Ofgem would be able to identify any outliers that were charging prices significantly in excess of the lowest-cost counterfactual, and it could then shortlist these providers to be subject to further scrutiny.

As outlined above, such an approach would mirror the model Ofgem successfully established to regulate the IGT market. It would also replicate the approach taken in the heat network sector via the Heat Trust heat cost calculator. We believe such an approach effectively balances the need for customer assurance around the heat costs they face, against the importance of maintaining incentives for investors to engage in the heat network sector; by allowing them to earn a reasonable return as well as enabling them to retain the benefit of efficiencies secured. From a customer perspective, such an approach would look similar to the energy price caps they are familiar with, and this could facilitate effective consumer communications.

Our concern with a more detailed benchmark based on comparator heat network groups is highlighted in Figure 1 above. In this respect, sector characteristics are very diverse, and this makes it difficult to accurately group similar types of network providers in terms of costs and associated prices without unintentionally and arbitrarily curtailing cost recovery / fair returns for investors. If this were to occur, it could hinder incentives to invest and therefore impact future growth. We do not think the market is ready for detailed benchmarking as it is not sufficiently mature and needs time to evolve. However, as outlined above, if certain networks were identified as requiring further scrutiny, this is where more detailed cost analysis, in the form of own past price benchmarking or comparator benchmarking, could be used.

Q16. Do you agree with our proposal to use gas boilers and heat pumps as external reference benchmarks?

In line with our response to question 15 above, we strongly support this proposal recognising that it aligns with the existing approach already established via the Heat Trust and our experience has indicated that developers and consumers have found the mechanism easy to engage with / understand. We recognise that the Heat Cost calculator is currently based on a gas comparator, and note the need to update this comparator tool to reflect a low carbon counterfactual (e.g. ASHP) given that gas is unlikely to be permitted for new build developments under the provisions of the Future Homes Standards (FHS). We already use a

price promise model benchmarked in this way, so we know that this is a workable and effective solution.

As outlined in our response to question 15 above we believe that such an approach would effectively balance the need to provide price assurance to end customers that they were not paying over the odds for their energy against the importance of maintaining incentives for investors to engage in the heat network sector.

Q17. Do you agree with the proposed method for calculating a heat pump benchmark, including the key input parameters outlined? Are there any additional factors that should be considered to ensure a robust heat pump benchmark?

The general approach and principles proposed seem appropriate but note that consideration should also be given to installation costs, maintenance profiles and system efficiencies. We also think that the benchmark should be future proofed to reflect the evolving costs of heat pumps, cost of energy and possible government support mechanisms. We note that most operators in the new build sector have published their cost comparator, using Heat Trust principles, and that this underpins long term investment for the build out of heat networks.

Q18. Do you agree with the proposed approach to comparator benchmarking, and our list of potential cost drivers set out below and in Appendix 3: Cost driver? Are there any relevant cost drivers that we haven't considered?

In line with our response to Questions 2, 3 and 15 above, we believe the main test of fair pricing should be external benchmarking, i.e. comparison to the cost of an alternative low carbon heat technology such as an individual heat pump (covering both installation and operating costs). If a heat network offers prices that are lower than this benchmark, it should be automatically presumed fair. If prices exceed this benchmark, then additional cost scrutiny or benchmarking (as proposed in the consultation) may be appropriate. Such an approach will offer effective protection for customers while also providing flexibility to heat network entities to set charges at an appropriate level, recognising that clarity on pricing levels is still evolving and that if they are set too low this could deter investment.

As outlined in our response to Question 15, we remain concerned that detailed benchmarking based on groupings of comparable heat networks is unlikely to be effective. Heat networks are highly diverse, and it would be extremely difficult to group them in a way that reflects cost structures fairly. Attempting to do so could result in arbitrary constraints on cost recovery and undermine fair returns for investors, ultimately damaging confidence and hindering market growth. This level of comparator benchmarking is also currently premature. The heat network market is not sufficiently established for this kind of analysis, and time is needed for better data, consistency and maturity to develop. As outlined in our response to question 15, our concern with more detailed benchmark based on comparator heat network groups is highlighted in Figure 1 above. In this respect, sector characteristics are very diverse, and this makes it difficult to accurately group similar types of network providers in terms of costs and associated prices without unintentionally and arbitrarily curtailing cost recovery / fair returns for investors. If this were to occur, it could hinder incentives to invest and therefore impact future growth. We do not think the market is ready for detailed benchmarking as it is not sufficiently mature and needs time to evolve.

We also note that in practice it would be very resource intensive to accurately segment the sector according to groups of heat networks that demonstrate similar characteristics. This is

particularly relevant at the outset of regulatory framework implementation when Ofgem will have limited information about players in the market and how their operations compare. Even once the framework is more established, we anticipate that finding “comparable” schemes with enough similarity to draw a valid benchmark will be difficult and complex given that most networks are highly site specific.

The cost driver list appears broadly sensible, but the real challenge will be in normalising the data recognising that not all inputs are captured the same way across different operators. We strongly encourage Ofgem to focus its benchmarking efforts on alternative low-carbon technologies that consumers might reasonably choose as substitutes and to deprioritise network to network comparisons which will be unreliable, costly to implement and risk distorting the market.

Q19. What is your view on the ease with which data could be reported on the four ‘High Importance’ cost drivers set out in paragraph 4.33? What information do heat network operators and suppliers already collect, and what would be challenging to provide?

Having reviewed the four groupings of ‘high importance’ costs we think it would be relatively straightforward to report data on ‘technology and fuel type’ and ‘fuel input price’. However, data on network pipe length and annual network demand would be more difficult to collate as we do not typically collect information in these areas; but we note this could be calculated.

Q20. What is your view on the ease with which data could be reported on the remaining ‘Medium Importance’ cost drivers set out in paragraph 4.33? What information do heat network operators and suppliers already collect, and what would be challenging to provide?

We generally think the data captured in the ‘medium importance’ cost drivers would be relatively straightforward to collate. However, in line with our response to Question 7, we would welcome clarity on what constitutes heat network generations (3rd, 4th or 5th) as there is not currently a standard industry interpretation.

Q21. What is your view on our proposal to publish a high-level methodology for each benchmark (once data is collected and methods have been tested), to provide an accessible overview of the approach?

In principle yes as we believe transparency is helpful and good overall for the sector. However, we stress that only after the methods are tested and proven to work in practice. In this regard, we would advise against publishing anything that might later need major revisions, this could confuse stakeholders or damage confidence in the framework.

Q22. Do you have any other feedback on the proposed approach to price comparison and benchmarking?

As previously described in our response to Question 15, we think the comparator and historic benchmarking approaches should only be used to subject heat network prices to additional scrutiny where outliers are identified via the application of external benchmarking. As such, we believe the approach should be tiered and proportionate and that this will be vital to ensure the framework supports investment and does not create barriers to growth.

Our concern is that trying to implement all three benchmarking tools at once will add an unnecessary administrative burden as well as additional costs and potentially confusion. We note that no other utility sector faces that level of pricing scrutiny, and it risks making heat networks less competitive than alternatives.

Profitability analysis

Q23. Do you agree with the proposal for ongoing monitoring of profitability through data collection on EBIT margins for all heat networks?

We do not believe the proposal to require heat networks to report EBIT data to Ofgem would be appropriate. As set out in our response to question 2a and question 6, we strongly believe that it is not the regulators role to monitor the profitability of businesses operating within a regulated market. While there is a clear rationale for monitoring financeability and affordability given Ofgem's duties, this should not stretch into the issuance of judgements around whether the returns that companies earn are appropriate.

We think this is particularly applicable in a relatively immature market where the risks of a return on investment are relatively higher and where Ofgem is seeking to encourage innovation which comes with inherent risks of its own. We have material concerns that, if Ofgem continues to progress proposals around profitability and EBIT analysis, this could have serious detrimental impacts on the investability of the sector and subsequently impact future levels of growth. We note that such an approach would also be out of alignment with established best practice in other regulated utility sectors.

On the flip side we note that new networks invariably show losses in their early years due to high capex and low consumer volumes. This does not mean that they are failing but rather that time is needed for them to become established in the sector and begin to make a return.

This would apply even to regulated monopolists, who would still face negative early cashflow due to the capital-heavy nature of heat infrastructure. We expect that if Ofgem were monitoring EBIT across the heat network sector, capturing both monopolists within heat network zones and competitive heat network providers operating outside of zones, the relative levels of profitability would differ. In this respect, where monopolies are created there is always a risk of additional inefficiencies being built into their cost profile as they are not subject to the normal competitive pressures that incentivise companies to reduce their costs to ensure they are able to compete effectively with other market players. This could provide the misleading impression that monopolists are earning lower returns, when in fact they are actually not optimising their costs. We have concerns that out of context, this kind of metric could send the wrong signals to regulators or consumers and trigger unfair scrutiny, potentially leading to reputation damage. We also think this underscores the value of injecting competition within the heat network market where possible to subject market players to competitive pressures that encourage the identification of efficiencies.

We also think it is important to learn lessons from other utilities given that this demonstrates effective strategies that have worked in practice. For example in the electricity sector, the introduction of the independent distribution network operator (IDNO) model in the early 2000s effectively introduced competition in the connections space, which in turn improved service quality and drove down costs for developers. In addition, it led to the injection of significant levels of private capital from investors focused on achieving a fair return who also had incentives to optimise costs and maximise revenues. If this investment had been subject to profitability analysis, the regulator may have perceived losses incurred in the early years

of the project as a failure, even though the investor would expect these to be offset against higher future returns. On the flip side, profitability analysis would likely have also introduced the risk of a potential profit intervention once the investment began to mature and make returns. Both such interventions could have acted as a deterrent to investment. Recognising the current need for significant volumes of investment in the heat network market, to meet government aspirations in this area, we think that the implementation of competition where possible will help to effectively facilitate this outcome; in a similar way to the experience in electricity where 80% of new homes are now connected by an IDNO.

Q24. How challenging would it be for heat network operators and suppliers to provide the data outlined for calculating EBIT margins? What barriers, if any, might affect the accuracy and completeness of the data?

In line with our response to Question 23 above, we strongly discourage Ofgem from routine monitoring of profit margin investigations such as EBIT. We note that such an approach would be out of alignment with established best practice in other regulated utility sectors. We also think that this type of monitoring is particularly inappropriate in a relatively immature market where the risks of a return on investment are relatively higher and where Ofgem is seeking to encourage innovation which comes with inherent risks of its own. We have material concerns that, if Ofgem continues to progress proposals around profitability and EBIT analysis, this could have serious detrimental impacts on the investability of the sector and subsequently impact future levels of growth.

In this respect, potential market investors will carefully consider investment in an asset where the long-term nature of the infrastructure means it will take 10 or more years to reach profitability. The investor will acknowledge that, in the early years of the investment, it will likely incur significant losses but offsets this against the returns it will earn in the future. The losses the investor will inevitably incur also provides a natural incentive to them to drive efficiencies, with the intent of optimising costs and associated losses. In this scenario, the use of profitability analysis will introduce a risk of a potential profit intervention once the investment begins to mature and make returns; and this risk will deter investment.

Q25. As data collection improves, do you agree that more in-depth profitability assessments, for example using Return on Capital Employed (ROCE), should be conducted for networks identified as outliers through benchmarking?

In line with our responses to questions 2a, 6 and 23 above, we do not think that the reporting of EBIT data to Ofgem should be required as a matter of course. It may be defensible for Ofgem to request this data where there is a clear trigger for further scrutiny of a given heat network, for example if a network is flagged by benchmarking as having high prices and low transparency, but we do not think it is appropriate for Ofgem to monitor this sector-wide.

We acknowledge that as a long-term measurement ROCE could be a better measure than EBIT data, but note that the data required is complex and varies heavily across the sector. It may be that the targeted use of ROCE would be suitable once the market reaches a more advanced maturity level, but we do not think it is an appropriate tool in the early stages. Our view is that any assessment of maturity / stability should be tied to a clear and objective 'market test', for example, when the sector reaches the government's aim of supplying 20% of the UK heat demand via heat networks by 2050. Another consideration could be after a defined period of stable regulatory operation. Until such a milestone is reached, any profitability benchmarking risks distorting investment incentives and creating confusion.

Q26. Do you have any other feedback on the proposed approach to profitability assessment?

We believe it is premature to embed detailed profitability assessments such as EBIT or ROCE across the heat network sector at this stage of market development. These types of tools may have a role to play in the longer term, but only once the market has reached sufficient maturity and stability. This would mirror the approach adopted in other utilities where more stringent reporting requirements were only used once the market had matured.

Our view is that any assessment of maturity / stability should be tied to a clear and objective 'market test', for example, when the sector reaches the government's aim of supplying 20% of the UK heat demand via heat networks by 2050. Another, consideration could be after a defined period of stable regulatory operation. Until such a milestone is reached, any profitability benchmarking risks distorting investment incentives and creating confusion.

As noted in our responses to Questions 2a, 6, 23, 24 and 25, early-year losses are common in infrastructure due to high upfront investment and phased consumer connections, as such, using EBIT or ROCE too early could send misleading signals to Ofgem or consumers. This is particularly critical in a nascent market where government is relying on private investment to scale rapidly in support of its wider Net Zero goals. In this respect, as outlined in Question 24 above, potential market investors will carefully consider investment in assets that will take 10 or more years to reach profitability and acknowledge that, in the early years, it will likely incur significant losses. In this scenario, the use of profitability analysis will introduce a risk of a potential profit intervention once the investment begins to mature and make returns; and this risk will deter investment.

Instead, Ofgem should focus on affordability and transparency, using targeted profitability reviews only in cases where other data (e.g. poor transparency, unusually high tariffs etc.) trigger a genuine cause for concern.

Central price transparency**Q27. What are your views on the three options? Please comment on each option in terms of the price information to be centrally published, how the price information is presented and what prices are compared to.**

In our response to question 15 above, we suggested that, when considering options for price comparison and benchmarking within the heat network market framework, it is important to clarify the outcomes that we are seeking to attain; and we think the same rationale applies to central price transparency. In this respect, we think the main desired outcome from price transparency should be the empowerment of end customers through the provision of the tools they need to effectively understand and engage in decisions regarding their heat network supply. This does not automatically translate into the provision of vast volumes of data regarding the respective prices of operators / suppliers participating in the market, but could take the form of targeted information that provides critical insights to end customers.

Empowering end customers

As outlined in the preceding section, the needs of end customers should always be at the forefront of any considerations regarding the heat network pricing framework. Before assessing how best these needs can be met, we think consideration needs first to be given to the context in which they will begin interacting with the heat network market. In this

respect, we are currently on the precipice of substantial change in the way we heat our homes and buildings. If the purported provisions of the FHS are implemented, in a few years' time housebuilders will no longer be permitted to install new gas networks and, from 2035, customers will no longer be allowed to install a new gas boiler in their homes. This will represent a substantial change to the in-home technology that customers understand and have been successfully using to heat their homes for decades.

Change can be scary, especially given that the use of new forms of heat could lead to further price increases for end customers. Within this context, customers want to be assured that whichever choice they make about the how they effectively heat their homes in the future, they are not paying over the odds for the services they receive.

While some customers may be interested in understanding the nth degree of detail about their heating options, we note that many find it difficult to engage with the information that suppliers are already providing to them. In this respect, the EY energy consumer survey 2022, which included views from 70,000 end customers in the US, highlighted that "the energy bill is still the primary point of interaction for most consumers" but that "only 33%...find it very easy to understand and pay their energy bills". This illustrates the importance of simplifying messages for end customers and providing guidance from a trusted source that provides assurances about the relative costs they face and how this compares to the counterfactual. This is the standard level of detail that we think should be provided.

Our views on the shortlisted options

We were pleased to see that Ofgem actively listened to the views of stakeholders expressed in response to the 2023 Consumer Protection consultation. As such, we strongly support Ofgem's decision to discount two options previously proposed that would have involved publication of a full register of prices or the provision of information regarding best and worst performers. Our preferred option with respect to price transparency remains aligned to the response we provided to the 2023 Consumer Protection consultation and reflects the arguments that we presented above in our response to question 15. In this respect, we remain supportive of the adoption of Option 2 a 'pooled market average comparison'. This is the only solution that utilises an objective comparator against which heat network customers can assess their own price of heat. It does not involve any element of subjectivity and is based on a clear, easily understood reference point, for example, comparing a given heat network price to a realistic alternative that a customer would be able to use (e.g. an individual heat pump). Combined with an understanding of the benchmarking analysis that Ofgem would be carrying out, such an approach would provide assurances to end customers, and other interested parties, that the prices they were facing were reasonable.

Option 2 also mirrors the Heat Trust heat cost calculator tool and the associated price promise models that are already used by some heat networks, including us, and which customers, developers and investors are therefore already familiar with. Experience has shown that these types of tools are easy to explain to each of these groups and we believe that, if implemented correctly, this approach will support transparency, accountability, and decarbonisation goals without excessive complexity or misinterpretation.

In addition, as outlined in our response to Question 15 above, we expect that heat networks developed primarily to retrofit existing buildings, either inside or outside of zones, will require some level of government subsidy; and likely a larger subsidy in the case of heat networks outside of zones. Comparatively, for heat networks constructed on new housing developments, we anticipate that this additional funding will be sourced from the respective

housing developers. It will therefore be important that this value is not overlooked, deterred or lost due to the regulatory framework that is established.

We do not think that either of the remaining two options would be appropriate, and we set out our reasons for this in the following section.

- **Option 1: Segmented approach (grouped comparison):** We understand the rationale for proposing an approach that is intended to provide clarity around the respective pricing levels being charged by heat networks that share 'similar characteristics'. However, we think that in practice there are several issues with such an approach.

Our main concern is linked to the diversity of the entities currently operating in the heat network market and the complexity that will naturally arise where Ofgem seeks to effectively and objectively segment these heat networks into groups that share similar characteristics. In this respect, while two heat networks may share similarities, for example, in terms of the heat source that they utilise, there may be rational reasons for differences in the prices that they charge given their ownership model, scale, geography, age, technology mix, etc. Indeed, these kinds of comparisons could become even more complex in the future as the market evolves further, with new sources of heat and new operational models.

We think there is a high risk that arbitrary or superficial groupings could lead to misleading comparisons and cause reputational harm to networks that are not charging unfair prices but are simply different. We expect that to accurately reflect the multitude of different types of heat networks that operate in the market, there would need to be a substantial number of segments / groups and that the sheer volume of these would likely become unworkable. Not only would Ofgem face material administrative burdens in effectively maintaining relevant materials but consumers would require significant explanation of the data to effectively understand and attain appropriate insights from it.

As outlined above, we think that this should be considered in the context that many customers already find it difficult to engage with the information that suppliers are providing to them; with the EY energy consumer survey 2022 highlighting that "only 33%...find it very easy to understand and pay their energy bills". This illustrates the importance of simplifying messages for end customers and providing guidance from a trusted source that provides assurances about the relative costs they face and how this compares to the counterfactual.

- **Option 3: RAG ratings vs external benchmark:** We support the simplicity of an approach based on a RAG rating and acknowledge that this would likely address the issues raised above with respect to consumer communications under the segmented approach. However, we do not think that this approach would address our fundamental concern about how to effectively categorise different heat networks into defined groupings that share similar characteristics. As highlighted above in our discussion of option 1, the diversity of the heat network sector means that it is not possible to make simple comparisons across different heat networks, and we therefore think there is a significant risk of arbitrary or superficial groupings resulting in misleading comparisons

Q28. Do you think the options have the right balance between providing a good level of transparency, burden on consumers to interpret the information, risks of misinterpretation by consumers, disclosure of commercially sensitive information, and risk of price convergence?

Please see our response to question 27 above. In line with these arguments we are of the view that only Option 2 ‘pooled market average comparison’ strikes the balance between transparency, consumer burden, risks of misinterpretation, disclosure of commercially sensitive information and risk of price convergence. In this respect, Option 2 is customer-friendly, uses an intuitive reference point, provides objective insight on the relative price that customers are facing and avoids the need for deep technical interpretation. We think that this option balances the need for customer information and assurance within the context of an evolving market where there is still limited clarity around an appropriate market price.

We think that Option 1 would effectively overload the consumer with data that could be hard to contextualise, and that this would likely lead to complaints, confusion, and unwarranted comparisons between disparate networks. While Option 3 would simplify the messaging provided to end customers, given that it would be based on a subjective assessment of heat networks grouped by similar characteristics, it doesn’t facilitate full transparency and there is significant scope for customer misinformation. In addition, as set out above heat networks on new housing developments do not require any subsidy, but rather rely on funding from housing developers, and it will be important that the approach adopted does not overlook, deter or lose this value. We are concerned that options 1 and 3 do not recognise this value.

Q29. Do you support focusing on one option or a combination of options in paragraph 6.69?

We support a clear focus on Option 2 as the primary model. As indicated by our response to question 27 above, we think it is important that customers can attain appropriate insights on the price of their heat network via simplified messaging that provides appropriate assurance. We expect that the publication of data from more than one type of central price transparency mechanism would be likely to blur key messages and could lead to more confusion.

Q30. Do you support the phasing in of the options described in paragraph 6.70?

We think there is value in implementing a consistent, proven, trusted tool from the outset of regulation, with appropriate monitoring put in place to test its efficacy in delivering desired customer outcomes. We think that the ‘pooled market comparison’ approach could perform this role from the outset and we would only advocate moving to more complex frameworks if there was real evidence that they would add value and were properly understood.

Q31. Do you support the adoption of different options for different heat network groups described in paragraph 6.71?

We do not think it would be appropriate to adopt different options for different heat network groups given that simple, consistent customer messaging for customers will be important to avoid customer misinformation and confusion. As such, we consider that a single tool (ideally Option 2) applied across the board would be cleaner, clearer and fairer. For the reasons outlined in our responses to Question 27 and 28, we think there is a high risk that arbitrary or superficial groupings under Options 1 and 3 could lead to misleading comparisons and cause reputational harm to networks that are not charging unfairly but are simply different.

Q32. Do you agree that central price transparency measures are unlikely to put additional administrative burden on heat networks in addition to data reporting for benchmarking? Do you have concerns on the administrative burden from any options?

We agree that, for our preferred option 2 the additional administrative burden would be minimal as the data would already be collected for benchmarking and price setting. However, if Options 1 or 3 were selected, it would be likely to significantly increase the administrative burden in terms of collating / presenting data and then effectively explaining, and (if necessary) defending price comparisons to end customers. There would also be an indirect burden from handling consumer or media queries triggered by misunderstood data.

Q33. Do you think it is appropriate to link central price transparency with benchmarking?

As indicated by the consistency of our answers to questions 15 and 27, we think there would be benefit in taking the same approach to benchmarking and central price transparency.

Price investigations

Q34. Do you agree with the approach to price investigations set out so far? Please provide reasons and views to support your response.

We think the proposals are sensible and pragmatic and draw from good practice in other sectors where price investigations are triggered when concerns arise from monitoring data or complaints. We welcome the proposal to develop guidance around price investigations as this will help to secure transparency and clarity with respect to the approach that Ofgem will take; and we look forward to the opportunity to engage on the detail of this guidance. We agree that assessments should be carried out on a case-by-case basis, particularly recognising the diversity of the sector and the specific circumstances applicable to each case. We also support the use of monitoring data regarding network performance and complaints and the selective use of tools like iterative benchmarking and profitability analysis to flag where deeper reviews might be warranted.