
NORTH AYRSHIRE COUNCIL

23 January 2018

Cabinet

Title:	Scottish Government Consultation Response: Local Heat & Energy Efficiency Strategies and Regulation of District and Communal Heating
Purpose:	To seek Cabinet approval for the submission of a response to the above consultation to the Scottish Government.
Recommendation:	That Cabinet notes the content of the above consultation and approves the submission of the proposed consultation response at Appendix 1 to the Scottish Government.

1. Executive Summary

- 1.1 Scotland's Energy Efficiency Programme (SEEP) is a new programme being developed to drive a reduction in the energy demand of residential, service and industrial sectors. As part of the future roll out of SEEP, the Scottish Government has invited views on their proposals for preparation of Local Heat and Energy Efficiency Strategies (LHEES) and the regulation of district heating.
- 1.2 LHEES is anticipated to be the main vehicle for identifying area-based energy efficiency and low carbon heating schemes for delivery through SEEP. The consultation outlines the Scottish Government's proposed approach to LHEES and the regulation of district heating.
- 1.3 The draft consultation response at Appendix 1 broadly welcomes the LHEES proposals. The LHEES will provide additional strategic context to many of the initiatives already being undertaken by the Council in matters of energy efficiency, low carbon heat and the successful delivery of area-based schemes. LHEES would also complement the existing North Ayrshire Environmental Sustainability & Climate Change Strategy 2017-20.
- 1.4 The proposed response does, however, reflect concerns over the additional resource burden that will be placed on local authorities as a result of LHEES becoming a statutory requirement.
- 1.5 Members are invited to note the key implications of LHEES at paragraph 3.3, and approve the draft response at Appendix 1 for submission to the Scottish Government.

2. Background

- 2.1 Scottish Ministers have committed to long-term action to reduce the energy demand of residential, service and industrial sectors. Formal commitment to this agenda was made through the designation of energy efficiency as a National Infrastructure Priority in June 2015.
- 2.2 In response to this commitment, Scotland's Energy Efficiency Programme (SEEP) is being developed as a collective programme to assist local authorities with financial and technical assistance to pilot new and innovative approaches to energy efficiency with community groups and businesses, helping reduce energy costs and improving warmth in homes, schools, hospitals and businesses. SEEP is due for rollout during 2018. The Scottish Government is now seeking views on proposals for Local Heat and Energy Efficiency Strategies (LHEES). LHEES will be prepared and delivered by local authorities and will support a coordinated approach to the local planning and delivery of energy efficiency and heat decarbonisation programmes through SEEP.
- 2.3 A high level policy scoping consultation on LHEES was launched in January 2017, forming part of a suite of consultations on the draft Climate Change Plan and the draft Scottish Energy Strategy. A total of 87 responses were submitted for the first consultation on LHEES. There were 17 local authority responses, including one from North Ayrshire Council. Our response at that time was informed by the policy position set out by the North Ayrshire Environmental Sustainability & Climate Change Strategy 2017-20, which had been recently approved by Cabinet.
- 2.4 The results of the first consultation have been analysed and used to inform this second consultation which sets out more specific policy proposals for LHEES and regulation of district and communal heating. District heating is a central feature of LHEES but the industry is currently unregulated. The consultation therefore also invites feedback on the proposals for new regulation measures.
- 2.5 Officers are well engaged with the wider policy objectives of SEEP, Scotland's Energy Strategy, and the national Climate Change Plan. Through the North Ayrshire Environmental Sustainability & Climate Change Strategy 2017-20, we are continuing to deliver area-based energy efficiency schemes across North Ayrshire (for example via the Non Domestic Energy Efficiency project, which is installing energy conservation measures within 14 different Council buildings) and we are developing and implementing heat networks in specific locations (for example construction of new district heating schemes in Stevenston and Dalry as part of new Council house building developments).
- 2.6 Officers have prepared a draft response to this second LHEES consultation at Appendix 1 for Cabinet approval in view of the additional and significant statutory duties that LHEES would place on local authorities.

3. Proposals

- 3.1 The draft response broadly welcomes the proposals for LHEES as it will bring additional emphasis to the Council's existing sustainability ambitions. Our response also provides critical feedback; the most significant concern is the resource burden and possible skills gaps for local authorities resulting from these proposals becoming a regulatory requirement. This would arise from requirements to assess and zone the authority area to identify specific area-based schemes, which would be a significant undertaking. The LHEES will also act as an investment plan, and signal to investors areas and schemes for future development. The proposals include the establishment and management of a consent process to develop specific district heating projects, and encouraging buildings in the Council area to connect to heat networks.
- 3.2 LHEES will also provide new, formal means to engage local non-domestic sectors on matters of energy efficiency and heat decarbonisation.
- 3.3 The key components and implications of the LHEES proposals are summarised as follows:
- a) **Local authorities would have a statutory duty to develop a Local Heat & Energy Efficiency Strategy (LHEES) to cover a 15-20 year period, setting out the overall energy efficiency and heat decarbonisation strategy for SEEP, authority-wide.** Prior to commencement of this duty, local authorities would be offered as yet undefined capacity and support to develop LHEES. The LHEES would determine zones, which set out the most appropriate energy efficiency and heat decarbonisation options for those areas to meet the overall decarbonisation and fuel poverty objectives of the LHEES. This would include identifying areas that would be appropriate for district heating, and identification of area-based energy efficiency programmes.
 - b) **Developers would need to obtain a district heating consent to develop district heating.** The consent would have conditions associated with it, including the requirement to have a licence and meet licensing conditions. Options are also being explored for ensuring that district heating operators have similar or the same rights as other statutory undertakers for permitted development and wayleaves.
 - c) **Developers would need to obtain a licence to develop and/or operate in addition to holding a district heating consent.** The licence would ensure technical and operational quality standards, network compatibility, and would codify existing UK-wide consumer protection frameworks.
 - d) **The Scottish Ministers would require the public sector to assess potential connection to district heating in collaboration with local authorities preparing their LHEES.** Additionally the Scottish Ministers would encourage the public sector (within the confines of the public procurement regulations), when assessing the need for future low carbon heat supply and/or where they have surplus heat, to consider connection to district heating, where there was opportunity to do so, and it was cost effective.

- e) **Planning authorities would continue to have their existing discretionary planning powers, to encourage the infrastructure needed to make connections to district heating.** Future versions of Scottish Planning Policy will have regard to Scottish Government strategies and requirements on district heating in its preparation.
- f) **The Scottish Government intend to provide support for delivery of LHEES and strategic district heating projects,** considering in particular the needs of local authorities.

4. Implications

Financial:	It is expected that funding for delivery of specific projects emerging from the LHEES will be provided through a combination of grant funding allocated via the new SEEP, and public and private sector investment on an 'invest to save' basis. Clarity on implications will emerge through preparation of LHEES, and evaluation of specific projects would be undertaken on a case by case basis.
Human Resources:	None at present. However, the proposals place an additional requirement on local authorities to develop and maintain their strategies (LHEES). Authorities are to be offered capacity and support to develop LHEES but it is not specified what form this support will take. Local authorities would also have involvement in the consenting process.
Legal:	The implementation of these proposals will lead to the creation of a statutory framework for Local Heat and Energy Efficiency Strategies (LHEES). It is also expected to lead to a regulatory framework for district (and communal) heating which will have implications for the local authority.
Equality:	Not applicable.
Environmental & Sustainability:	LHEES specifically aims to improve energy efficiency and decarbonise heat across Scotland. This supports the Council's commitments set out within the North Ayrshire Environmental & Sustainability Strategy, including to reduce carbon emissions in North Ayrshire by 40% (based on a 2005 baseline) by 2030.
Key Priorities:	The introduction of LHEES would underpin the Council Plan strategic priority 'protecting and enhancing our environment for future generations' by providing a co-ordinated public/private sector strategic approach to energy efficiency.
Community Benefits:	Not applicable.

5. Consultation

- 5.1 Consultation with Economy & Communities was undertaken in the development of the response, given the potential implications for land use planning and for local businesses.

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CRAIG HATTON
Executive Director (Place)

For further information please contact **David Hammond, Senior Manager (Housing Strategy & Corporate Sustainability)** on **01294 324764**.

Background Papers

n/a



Scotland's Energy Efficiency Programme: Second Consultation on Local Heat & Energy Efficiency Strategies, and Regulation of District and Communal Heating

RESPONDENT INFORMATION FORM

Please Note this form **must** be completed and returned with your response.

Are you responding as an individual or an organisation?

- ☐ Individual
☒ Organisation

Full name or organisation's name

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The Scottish Government would like your permission to publish your consultation response. Please indicate your publishing preference:

- ☐ Publish response with name
☒ Publish response only (without name)
☐ Do not publish response

Information for organisations:

The option 'Publish response only (without name)' is available for individual respondents only. If this option is selected, the organisation name will still be published.

If you choose the option 'Do not publish response', your organisation name may still be listed as having responded to the consultation in, for example, the analysis report.

We will share your response internally with other Scottish Government policy teams who may be addressing the issues you discuss. They may wish to contact you again in the future, but we require your permission to do so. Are you content for Scottish Government to contact you again in relation to this consultation exercise?

- ☒ Yes
☐ No

Question 1

Do you agree with our proposed overall approach to LHEES? Y/N

Please explain your answer in the text box provided, including any available evidence or examples.

Yes.

We welcome the opportunity to respond to these updated proposals and are encouraged to see that the latest version has been informed by responses to the first consultation. We are in general agreement with the principles behind LHEES and the proposed approach to delivery. A strategic approach is essential if Scotland is to further itself in the international community as a leading low carbon economy and local authorities can play a significant role in this through the delivery of LHEES.

North Ayrshire Council already has strategic targets to deliver affordable warmth and ambitious CO₂ reductions. Consequently we look forward to the additional statutory significance that LHEES will bring to these objectives. Recognition of energy efficiency as a means to tackle fuel poverty at a local level is also welcomed and will support the continued delivery of successful energy efficiency programmes.

We have questions over specific elements and details of the proposals and these are raised in detail throughout our response.

In summary:

Focused delivery of LHEES must be balanced with ongoing updates to ensure continued relevance in the face of the changing technical, political and social conditions that are to be expected over a 15-20 year period. We would also expect future policy developments to clarify how/if targets will be established through LHEES and whether progress reporting will align with (or supersede) existing obligations.

We would like to see more clarity on the powers that local authorities are expected to exercise in prioritising local needs in the creation of their LHEES, noting the commitment in the current Fuel Poverty Strategy consultation to a common standard of service across rural and urban areas. Authorities with rural and island communities can expect to face challenges in establishing economically attractive large heat networks. Conversely the need for material energy efficiency improvements can be substantial in such areas as a result of older or more exposed building stock - almost all authorities with rural or island communities have rates of fuel poverty markedly above the Scottish average and central belt regions (*SHCS 2013-15 results*). On this basis we would expect LHEES to be supportive of all feasible decarbonisation options and not only heat networks.

Waste heat recovery merits consideration but it is our view that energy efficiency should be given precedence, followed by strategic planning for heat networks with waste heat recovery forming a part of that planning process. Our concern is that the use of non-domestic waste heat for such purposes will be opportunistic due to

the many forms it may take. The principles may have been demonstrated in other nations but further evidence is required to ascertain the viability of this approach in the UK. A Scotland specific assessment may be beneficial as a first step in understanding the scale of the opportunity with a view to becoming a part of LHEES in due course.

Finally, we see LHEES as providing an opportunity to collectively engage heat users and local residents in matters of low carbon heat. LHEES presents an opportunity to create attractive environments for inward investment from developers and innovators that could support the wider Scottish Government ambition of further establishing a low carbon economy.

Question 2

What are your views on asking local authorities to report on tackling fuel poverty and climate change in the LHEES rather than the LHS?

North Ayrshire reports on climate change emissions on an annual basis through the Climate Change Reporting Duty (CCRD) mechanism. In addition North Ayrshire Council officers raise quarterly performance reports against our Environmental Sustainability and Climate Change Strategy targets. Reporting climate change progress through LHEES seems sensible provided that this does not lead to an unnecessary overlap with reporting through other schemes. We also recognise the benefits of the CCRD scheme for driving wider action on climate change and we would like to see such benefits retained, regardless of the reporting route.

The justification for reporting fuel poverty through LHEES is less clear. Energy efficiency is only one reason for a person to find themselves in fuel poverty; the underlying causes are far reaching and beyond the scope of LHEES. Further, we are not certain that the decarbonisation of heat will automatically lead to lower heating costs in the short to medium term. Due to this potential conflict we believe that the reporting of fuel poverty through LHEES would not be appropriate, but it should certainly be a fundamental consideration in any socio-economic assessment.

Establishing a robust and accurate means of assessing fuel poverty is, in our view, of greater concern than where the figures are reported. Current methods make assumptions based on data zones but fuel poverty affects individual people and families and is not identifiable through the use of proxy data. This seems unlikely to change unless additional data sets prompted by LHEES provide greater insight into fuel poverty at a local, individual level.

Question 3

Do you agree with our proposed overall approach to zoning? Y/N

Please explain your answer in the text box provided.

We agree broadly with the principles of zoning as a means to promote the strategic deployment of heat networks and energy efficiency schemes. However it seems that local authority boundaries form arbitrary constraints in the zoning process (if zones are to be based on heat demand and supply). This suggests that formal

cooperation between authorities will be necessary and highlights the importance of applying a consistent methodology.

NAC already delivers area-based schemes and projects, many of which require socioeconomic assessment. The zoning activity will require interaction between central government, local government and the public sector, communities, individuals and private enterprise.

Zoning activities must take a pragmatic and well-informed approach to ensure that networks are established with sufficient capacity for future expansion, and avoid being designed with arbitrary capacity 'just in case' which could lead to inefficiencies and excessive operating costs.

The resource burden that will be created through the zoning activity should not be underestimated, particularly if (as we expect) the outcomes are to be published and promoted. For example, what legal recognition will be afforded to the zoning activity or the zones that are established? Will there be a precedent for rezoning or periodic review to capitalise on developments in technology, local capacity or policy? Similarly, how will formal challenges to the allocation of zones be arbitrated?

The relative importance of the criteria used to define zones (e.g. fuel poverty, decarbonisation, local development) needs to be unambiguous as these factors will not necessarily align, particularly if commercial viability is a consideration in order to attract investment. It is our understanding that more than one 'set' of zones will be required; the criteria for identifying district heating will be distinct from (although not unrelated to) those for area-based energy efficiency programmes. Equally, energy efficiency is likely to involve retrospective consideration as well as implications for new build property.

There is no reference to zones that will be considered unsuitable for district heating – we would like to see LHEES and SEEP provide an alternative mandate for heat decarbonisation and energy efficiency in such areas.

Finally the efficacy of the zoning activity will be determined by the completeness and quality of data used to inform it. The current proposals suggest data for developing LHEES would be provided on a voluntary basis at a national level but it is unclear what this data will be, who will be responsible for its provision and completeness, and how it will be incentivised. Reliance on the voluntary submission of data to support LHEES appears incongruous with what is set to become a statutory requirement.

Question 4

What are your views on the proposed district heating consent process?

In particular, what are your views on:

a) the appropriateness of any potential options for a relevant body to act as 'the developer of last resort', to ensure completion of development?

b) options for ensuring that district heating operators have similar or the same rights as other statutory undertakers for permitted development and wayleaves

Please provide any appropriate evidence to explain your answer.

While the consenting process aims to de-risk projects for investors the possibility of a development being delegated to another body by the local authority or Scottish Ministers in the event of failing to meet the conditions of consent could act as a deterrent. If consent is granted for the build out of a particular area then the developer should have confidence that access will not be vulnerable to delays or unreasonable risks that are outside of their control.

A 'developer of last resort' would need to be poised to scale up capacity if the body exists as a contingency organisation. Linked to this is a requirement to ensure sufficient retention of core skills. Consideration should also be given to a potential requirement for a bond to be provided at the consenting stage, in order to address the financial implications of another party competing the development.

It is natural that some zones will be more appealing to developers than others. Even with a consent process this asks the market to determine which networks will be established first, in which case the most financially appealing or lowest risk projects are likely to be developed. This may be an acceptable outcome but could inhibit progress towards other objectives (such as fuel poverty reduction). This may support the need for a 'developer of last resort' that can justify lower return projects for the advancement of other causes.

The most suitable heating option should be a consideration in the consenting process to avoid a 'district heating at any cost' outcome.

The introduction and management of a consent system places an additional resource burden on the local authority, particularly if this is to be treated with the same significance as other utilities.

Proposals for operators to have the same rights as other statutory undertakers are considered reasonable.

Question 5

What are your views on the proposals for socioeconomic assessment?

The economic case for a project or scheme can be quantified and subsequently evaluated to establish the relative merit of particular projects or schemes over others. Objectively comparing the social benefits of a project is less straightforward and can become irrelevant if the financial viability of a project cannot be demonstrated. We would like to see further detail on the scope of the social element(s) of the proposed assessment.

A one-size-fits-all approach to assessment is unlikely but an agreed methodology would ensure that common themes and criteria are included in all assessments. Heat networks may be constructed for a number of reasons – heating bill reduction for the individual, the support of local communities, carbon reduction, job creation, revenue generation – and each authority is likely to place their own weightings on such criteria. An agreed means of determining the relative importance awarded to these themes would therefore be beneficial.

Our concern is with the availability of data at a resolution and completeness necessary to make informed project and building level decisions without reliance on proxy statistics, and who will be responsible for the compilation of this data. Access to detailed heat demand data for our own (and indeed other public sector) buildings is expected to be somewhat easier than obtaining this information for domestic and non-domestic customers. While this may be most pertinent to building level assessment such data would help inform strategy level decisions, avoiding the identification of areas that are subsequently shown to be unviable when assessed at a project level.

Improvements in energy efficiency should be prioritised to reduce heat demand in advance of definitive zones being established for heat network development. Heat networks may take longer to establish at scale and risk being over-specified if there are ongoing interventions to reduce heat demand at a building level.

Adopting a top down approach (such as using low resolution heat maps) does not necessarily reflect the situation in individual buildings or dwellings – some of the causes of fuel poverty are specific to the occupant. Assessment approaches therefore need to be sympathetic to smaller, locally-scaled networks or weighting energy efficiency in areas with low heat demand density.

Even with comprehensive datasets there will remain scope, and indeed a need, for, subjectivity to ensure that local strategies are well targeted and positioned to be effective.

The currently low price of gas (in comparison to other Northern European countries) should not be underestimated as a substantial barrier to change and must be recognised in any assessment.

Question 6

What are your views on the proposals for data for LHEES?

Please explain your answer, including any available evidence or examples.

Heat Demand

Reference is made to the voluntary submission of data in the proposed approach to LHEES. We would like to see greater certainty around what additional data will be available to authorities to support the creation of LHEES, particularly how heat map/EPC data will be supplemented with data on gas and electricity (para.83).

Surplus Heat

The opportunities for recovering surplus heat are expected to be diverse, and without an understanding of the potential opportunity the justification for including this requirement is unclear. The proposal to 'encourage' is also unclear; if there is no discernible incentive or penalty mechanism what would drive industry to allocate resource to this activity? Encouraging industry with surplus heat to provide data (para.84) presupposes sufficient evidence for the existence of surplus heat, and in a form that can be collected and conditioned for further use. It is our view that this needs to be established for specific circumstances if productive dialogue is to take place – this raises questions as to who would undertake this preliminary work.

Industry should be engaged over its willingness to collect and provide accurate data on surplus heat – are individual sites likely to invest in accurate metering arrangements on a speculative basis? Accurate quantification of heat may present practical challenges (although not insurmountable) as heat will be lost at numerous points in a process through design or otherwise. Sufficient incentives may help to establish this information but recognition needs to be given to the core business of individual organisations and how much added value, perceived or otherwise, would result from such exercises. Many process industries already have heat recovery mechanisms in place such as for preheating. Where surplus heat cannot be reduced further it would be prudent to use the heat as close to the site as possible.

Opportunities may exist through the use of backup or peaking plant which is typically reserved for emergency use and operates only intermittently. Through suitable agreement (and reasonably well matched temperature requirements) compatible heat or power sources could be used predominantly as a controllable heat source for district heating, but still available to the industry in the event of emergency. This could be a route to replacing high carbon generators with low carbon plant, with costs met through heat sales.

Question 7

What types of data information would industry be willing to provide a local authority or national delivery mechanism to develop LHEES, so that they can identify opportunities (potentially in aggregate) for heat demand reduction and heat recovery, both on and off site?

Please explain your answer, including any available evidence or examples.

As a local authority, we expect that useful information from relevant industry operators would include current heat outputs, anticipated future changes to that output (including growth, introduction of new business processes etc.), and any appetite for partnership in the development of a heat network.

Question 8

What data from industry would be most helpful in developing district heating projects?

Please explain your answer, including any available evidence or examples.

No response provided.

Question 9

What data could be provided without compromising competitiveness of these organisations.

Please explain your answer, including any available evidence or examples.

No response provided.

Question 10

What are your views on our proposed approach to district heating licensing?

Please explain your answer, including any available evidence or examples.

The proposals for a licensing regime are supported. If the overall arrangements are fit for purpose there should be limited instances in which it becomes necessary to revoke a license; equally, the threat of revocation should be real and credible if the licensing approach is to be of value. Where the conditions of a license are breached and it becomes necessary to take action there are questions over the fate of the physical network and associated assets if these are owned by the licensee and are subject to capital repayment. The 'developer of last resort' may have a role to play in such circumstances but consideration should be given to the consenting and zoning outcomes.

Any approach should recognise the consequences of an overly burdensome licensing system, which includes the potential for the establishment of a small pool of powerful market operators that could inhibit future competition from smaller providers.

The licensing approach should also consider the future ownership of networks and the conditions for the resale of assets. While this is not automatically an issue there should be suitable protection measures in place for consumers on the network and these could be afforded, in part, by specific conditions of the license.

Question 11

Taking into account the limitations of the Scottish Government's legislative competence in relation to consumer protection:

- a) what are your views on our proposals around consumer protection
- b) how do you think could we provide a robust complaint resolution process in relation to District Heating in Scotland?

Please explain your answers, including any available evidence or examples.

The need for protection of heat network customers is arguably greater than for current heat/gas supply as consumers will not be able to switch supplier and may, in certain cases, be obligated to connect.

We see consumer protection as having two distinct elements; the creation of suitable protection mechanisms and the accessibility of these mechanisms to consumers. Without clear assurances for customers (and the clear communication of these) there is a risk of low trust levels becoming embedded from the outset that will be difficult to redress.

Given the limitations of devolved powers the Scottish Government may seek to adopt an indirect, preventative approach as the basis for any consumer protection scheme. For example, robust design and construction standards will reduce the potential for latent errors that will manifest as increased prices or poor service for consumers. A duty to regularly report on network efficiency could reinforce these standards. In addition the aggregation and publication of network tariffs at a national level would allow customers to understand how competitive their own heat charges are and help identify underperforming networks; this information is available in other territories with developed heat network infrastructure and would provide a measure of confidence analogous to current gas/electricity supplier price comparison.

Current consumer protection schemes, such as the heat trust, operate on a voluntary basis. Very few networks in Scotland are registered with the scheme (1 at the time of writing) suggesting that a voluntary approach will not ensure coverage for customers of all networks and, by extension, consistency across networks. Driving participation as a condition of DHLF/LCITP funding only reaches those who choose to use this funding. An approach that pertains to all networks is needed – especially as the industry seeks to develop projects that sustain themselves without subsidy as is the case in other established DH markets.

The “*Turning up the heat: The experience of district heating consumers*” report by consumer body “Which?” identified mixed consumer attitudes to district heating, including the view of some that their bills were unclear or an underlying belief that charges were unfair. One of the report’s recommendations was that the (UK) government should look beyond voluntary consumer protection. If the industry is to become regulated in Scotland then it is fitting that an independent body is created to ensure formal escalation channels are available to consumers for issues that cannot be resolved satisfactorily by the network operator.

We expect the findings of the forthcoming CMA review (<https://www.gov.uk/government/news/cma-examines-heat-networks>) to inform arrangements for consumer protection in the area of heat networks.

Question 12

What are your views on how consumer advice should be provided for district heating customers in Scotland – what form should this take? Who should it be aimed at? What should be provided?

Please explain your answers, including any available evidence or examples.

The shift from established, decentralised heating arrangements will demand a concerted effort for advocacy and consumer education. Heat networks also remove the autonomy associated with individual heat generation leading to an implicit relationship between all users of the network that is not visible to consumers on existing gas networks. This should be recognised in the advice given to consumers with sufficient assurances provided, particularly as options to switch supplier will be limited. This should include specifics such as who will be responsible for equipment within the dwelling such as the HIU's, radiators, pipe work and controller.

Consumers should be clear on the type of advice available to them and where they can access it. Specific network arrangements/billing should be a matter for the heat supplier or network operator; general advice on heat networks could be offered by a number of organisations providing that the advice is consistent in its delivery (in much the same way that general consumer advice is available on switching or energy efficiency).

Evidence suggests that consumer engagement with existing domestic energy markets has typically been low. A localised approach through LHEES will provide a major opportunity to engage consumers in a way that has not been possible with existing utilities. The credibility of advice will lie in consistency between different networks and across different regions. This points to centralised or independent governance of the advice provided to consumers. Consideration needs to be given to those who do not have ready access to online advice or may be considered as vulnerable.

Unlike existing utility networks it is possible that the roles of infrastructure owner and heat retailer could be fulfilled by a single entity (depending on the model). This is likely to incentivise efficient operation of the network at the expense of a lack of competition for consumers. For this reason, and for ongoing public confidence in heat networks, there must be agreed, unambiguous service standards in place for consumers to rely on. Where these are not met, independent escalation channels should be established to rectify service failings. We do not believe it is appropriate for local authorities to have a role in resolving specific customer issues, unless the authority is supplying heat to consumers, but may be able to support the provision of general advice on heat networks.

Question 13

What are your views on the proposed approach to connecting heat users?

It is our view that the potential for connecting heat users should be considered as part of the zoning activity, and that those with potential surplus heat are engaged as early in the process as possible. The greater the pressure on individual users to connect, the greater the need for a corresponding incentive or support mechanism.

In the absence of any legal powers to compel connection to a heat network, particularly for private buildings, the proposals suggest a facilitation role for authorities through the consent process and socioeconomic assessment. In this case connections are likely to be easier if an economic advantage or service quality benefit is presented. Building owners may be encouraged to connect but

with no real power to influence the cost of heat is likely to determine the heating method selected. If authorities are only empowered to encourage connection through LHEES then the early establishment of mutually beneficial relationships will be essential.

There should be scope to allow buildings to proceed with other individual low carbon options if these are demonstrably more effective than connection to a network.

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Question 14

What are your views on the proposed phased approach to non-domestic sectors with potentially usable surplus heat?

Please explain your answers, including any available evidence or examples.

A reliance on surplus heat risks a contradictory position that diminishes any argument to improve efficiency or reduce the amount of heat generated in the first place. Heat networks are often financed on a long term (20+ years) business case, which would necessitate either a reliance on the continuing availability of the surplus heat or the inclusion of contingency heat sources and plant at additional capital cost.

Capturing surplus heat should be encouraged but without a sufficient evidence base to quantify the scale of the opportunity the inclusion of non-domestic surplus heat as a potential heat source under these proposals is not clear. A DECC report attempted to quantify waste industrial heat in the UK resulted in a diverse range of estimates. Further detail on the size of the opportunity in Scotland alone is required to understand how much capacity actually exists, in what form(s), and the cost/means of upgrading the heat to supply a network. This is only to establish the opportunity – the subsequent physical recovery/conditioning of surplus heat for network use will not be without challenge.

Discussions with non-domestic sectors must be predicated on an initial understanding of the opportunity and there are already positive examples of this being facilitated with support from Scottish Government agencies. Productive dialogue will also require absolute clarity on agreeable business models to cover the capital and ongoing burden of establishing suitable heat recovery and conditioning systems will be essential.

On this basis anything more than a voluntary approach seems inappropriate given the range of variables involved; understanding of individual circumstances, core business and local heat demand is essential to reduce risk. If mediation is necessary then questions should be raised over the stability of any ensuing agreement, with heightened risk of legal or contractual difficulties.

In any case our position is that it is more advantageous to focus on the use of surplus heat on site before considering its export to an external network.

Question 15

Requiring all regulated non-domestic sectors (see Box 1) with potentially usable surplus heat to carry out energy efficiency assessments, including heat (and its recovery, and onsite and offsite use), and implement recommendations where feasible.

Please explain your answer, including any available evidence or examples.

This requirement would be welcomed, in order to compel those with surplus heat to properly consider potential off-takers for that heat. This would ensure that

operators give much greater consideration to how their business processes can make a contribution to addressing the heat needs of communities.

Question 16

How should energy efficiency (including heat) be assessed across the regulated non-domestic sectors – including consideration for energy efficiency beyond the site boundary?

Please explain your answer, including any available evidence or examples.

No response provided

Question 17

Could a more consistent approach be achieved within the PPC regime, with the existing energy efficiency requirements for Part A sites being applied to Part B sites?

Please explain your answer, including any available evidence or examples.

No response provided

Question 18

Which benchmarks or criteria should be used / considered in assessing energy efficiency?

Please explain your answer, including any available evidence or examples.

See response to Q19.

Question 19

What range of industrial processes should be covered, including size and sector, and why?

Please explain your answer, including any available evidence or examples.

We do not intend to provide an exhaustive list of which processes should be included but we believe that the following should be considered:

- Availability of accurate and complete site energy data,
- Studies or evidence of similar opportunities,
- Suitability of surplus heat (the form in which heat is provided and the composition of the material or fluid carrying the heat) and the cost of upgrading it to meet the demands of the network,
- Understanding of the relationship between the heat supply and local heat demand,
- Availability of heat will be subject to process fluctuations or changes in production.

The above points to industrial processes that are stable, or at least predictable, and within a specified distance of a potential network to minimise transmission losses.

Recent studies have identified some of the most suitable industrial processes: "The potential for recovering and using surplus heat from industry" Final Report for DECC. 05/03/2014. Led by Element Energy Limited.

Question 20

What are your views on the establishment of a national delivery mechanism to support local authorities in delivering their proposed functions for LHEES and district heating, and which could support delivery and governance of SEEP more widely? What form should it take? What functions should it have?

Please explain your answer, including any available evidence or examples.

It is difficult to envisage district heating developing as a regulated industry in the absence of a national delivery mechanism to ensure ongoing consistency in matters of zoning, consent, licensing and consumer protection.

A national delivery mechanism would act as a focal point for authorities in the early years of LHEES to guarantee that strategies are written and delivered in line with the intent of these proposals. If the delivery mechanism also takes ownership of broad governance matters this could mitigate some of the capacity challenges that

authorities are likely to face in establishing LHEES.

The delivery mechanism may have a fixed 'core' but could include a consortium element to help facilitate the sharing of best practice and ensure that governance arrangements remain fit for purpose. This has particular implications for communications between authorities with similar challenges but who may find joint initiatives difficult due to being geographically or politically dispersed.

As LHEES develops the responsibilities of national delivery mechanism could include oversight and enforcement of technical standards and ensuring that licensees continue to meet their obligations.

The body could promote standardisation of technologies, interoperability of control systems, pragmatism in the procurement process, and consistency in the level of service offered to consumers. A centralised body could also have a role in arbitrating challenges over the zoning activity undertaken by authorities, based on clear guidance developed with local authorities over the zoning activity.

Question 21

Please let us know any views you have on the most cost effective way of supporting schemes that are socio-economically appropriate and in line with the local authority LHEES.

The costs of establishing networks could be minimised through a streamlined approach to procurement, especially for public sector developers. This is the aim of the proposed District Energy Procurement Agency (DEPA) that seeks to build on the experience of Värmek. Centralised expertise matched with local knowledge would allow specific schemes to be developed in an efficient and cost effective way.

Most heat network business cases are expected to demonstrate an attractive tariff over the counterfactual case which, in the case of gas, uses established infrastructure with less (or no) demand for capital repayment. Further, the UK currently has some of the lowest domestic gas prices in Europe, partly due to having one of the lowest tax components amongst IEA nations DBEIS, 28th September 2017, Domestic gas prices in the IEA. Rather than supporting schemes with an ongoing subsidy, support could be incentivised through favourable connection costs or taxation rules that offset this disadvantageous starting point.

Clarity over future business rates and rateable values would provide greater confidence to networks developers and owners; the ADE has previously suggested that heat networks are given the same status as gas and electricity networks in this regard.

Question 22

We would welcome stakeholders' views on our suggested approach to wider UK heat market reform, and in particular:

- a) any additional evidence that can be offered around the approach that should be taken to decisions on decarbonisation of the gas supply
- b) any views on the issues being considered within the remit of the ADE taskforce

Scotland has an opportunity to lead in the decarbonisation of heat, much as it has become a leader in low carbon electricity generation. However the challenge of heat decarbonisation is more localised and is considerable.

Seasonal challenges are pronounced in Scotland and there remains diversity between the most appropriate solutions for urban, rural and island communities. District heating provides an opportunity to establish low carbon heat sources but gas and fuel oils remain the most practical option for many households due to wide dispersal of households in rural areas. Heat market reform, and indeed the decarbonisation of heat, needs to recognise this and deliver solutions that meet the needs of all in a sustainable way. Many, if not all, are likely to require long-term infrastructure planning that will set a course for decades to come.

Question 23

Please tell us about any potential impacts, either positive or negative, you feel our proposed approach may have on particular groups of people, with reference to the "protected characteristics" listed above.

Please explain your answer, including any available evidence or examples.

We agree with the proposals attitude towards protecting groups who may be more vulnerable to the effects of fuel poverty or disruption. Consideration must be given to the means of communication used to engage groups who may not be familiar with online portals or even email, to ensure that their perspective is not overlooked.

More broadly these proposals are intended to lead to a significant, positive impact on local communities. It is essential that those organisations occupying leading roles in LHEES continue to engage with all groups who will be affected by SEEP and the rollout of LHEES.

Question 24

Are there any special provisions/ measures we should consider/ make/ include:

- a) to ensure protected characteristics are taken account of in the LHEES? In your opinion, should the LHEES process specifically include/ address the protected characteristics?
- b) to ensure protected characteristics are taken account of in the socioeconomic assessment? In your opinion, should that process specifically include/ address the protected characteristics?

c) in terms of the installation of networks in order to minimise disruption to people with mobility problems or any other protected characteristic?

d) in terms of consumer protection, that would better assist in ensuring that people with protected characteristics will be safeguarded (taking account of our limited legislative competence in this area)?

e) in terms of communications, that would better assist in ensuring that people with protected characteristics will be kept informed and can fully participate?

Please explain your answers, including any available evidence or examples.

Our comments on these matters are provided throughout the response.

DRAFT

Question 25

Please tell us about any potential costs or savings that may occur as a result of our proposed approach and any increase or reduction in the burden of regulation for any sector. Please be as specific as possible.

Please explain your answer, including any available evidence or examples.

It is our view that the additional burden arising from these proposals, while welcomed, will require dedicated resource and expertise to deliver. There is a degree of overlap with existing functions but we do not believe that sufficient capacity exists in all authorities to absorb the additional burden that will result from the proposals. In the context of recent pressures we would therefore welcome greater clarity on the support that will be available to authorities to successfully create and deliver LHEES over the next 15-20 year period.

Question 26

Please tell us about any impact on individual privacy/ data that may result from our proposals. If there is an impact on individual privacy, are there any special provision/ measures we should consider/ make/ include that would better assist in ensuring that this privacy impact is lessened/ negated?

Please explain your answer, including any available evidence or examples.

No response provided.