# CONSULTATION ON HEAT & ENERGY EFFICIENCY STRATEGIES, AND REGULATION OF DISTRICT HEATING





#### **CONTENTS**

SECT	TON	PAGE			
EXEC	CUTIVE SUMMARY	2			
INTRODUCTION					
	TION A – LOCAL HEAT & ENERGY EFFICIENCY STRATEGIES TO PORT DELIVERY OF ENERGY EFFICIENCY AND HEAT OBJECTIVES OF SEEP	13			
A1.	CURRENT POSITION	13			
A2.	KEY COMPONENTS OF A POTENTIAL REGULATORY FRAMEWORK FOR LOCAL HEAT & ENERGY EFFICIENCY STRATEGIES	14			
A3.	SCOPE AND CONTENT	14			
SECT	TION B – DISTRICT HEATING REGULATION	17			
B1.	CURRENT POSITION AND OVERVIEW OF PROPOSED REGULATORY APPROACH	17			
B2.	PLANNING, ZONING AND CONCESSIONS FOR DISTRICT HEATING	23			
	B2.1 Current position and reasons for intervention	23			
	B2.2 Scenario	23			
ВЗ.	CONNECTING USERS TO DISTRICT HEATING NETWORKS	26			
	B3.1 Current position and reasons for intervention	26			
	B3.2 Scenario	26			
B4.	CONNECTING SURPLUS INDUSTRIAL HEAT	29			
	B4.1 Current position and reasons for intervention	29			
	B4.2 Scenario	30			
B5.	TECHNICAL STANDARDS, CONSUMER PROTECTION AND LICENSING	33			
	B5.1 Current position and reasons for intervention	33			
	B5.2 Scenario	33			
B6.	ENABLING ACTIVITY AND ADDITIONAL AREAS FOR CONSIDERATION TO SUPPORT OUR REGULATORY APPROACH	35			
ANNEX A – RECOMMENDATIONS OF THE SPECIAL WORKING GROUP ON REGULATION OF THE EXPERT COMMISSION ON DISTRICT HEATING					
RESPONDING TO THIS CONSULTATION					
RESPONDENT INFORMATION FORM					

Executive summary

## **EXECUTIVE SUMMARY**

This is a Scottish Government consultation paper on Local Heat & Energy Efficiency Strategies (LHEES), and regulation of district heating. It is one of a number of consultations on the draft Climate Change Plan, the draft Energy Strategy and related activity, published in January 2017<sup>1</sup>.

Your views are invited on the role that regulation could play in both:

- the planning at local level of heat decarbonisation and energy efficiency programmes within our new Scotland's Energy Efficiency Programme (SEEP), which is due to begin from 2018 onwards; and
- supporting the development of district heating in Scotland.

#### **Background**

The Scottish Government designated energy efficiency as a national infrastructure priority in June 2015, covering energy efficiency and heat decarbonisation of both domestic and non-domestic buildings. The subsequent publication of the 'Infrastructure Investment Plan 2015' gave a commitment to multi-year funding of SEEP, which was substantiated in the 2016 Programme for Government (PfG), confirming Ministers' commitment to a minimum of £0.5 billion over the next four years, to support the initial phase of the programme.

## Consultation on district heating regulation and Local Heat & Energy Efficiency Strategies (LHEES)

This consultation document meets our PfG commitment to consult on heat regulations commensurate with the scale of the heat market. It has been drafted in collaboration with the Short Life Working Group which the Minister for Business, Innovation & Energy established in October 2016, to respond to the recommendations on district heating regulation given by the previous Special Working Group (SWG) of the Expert Commission on District Heating.

This is a **high-level policy scoping consultation** that seeks views and further evidence on a broad scenario for district heating regulation and Local Heat & Energy Efficiency Strategies, that would deliver the recommendations of the previous SWG, and which would support the development of SEEP:

- Section A consults on the role of LHEES in enabling local authorities to plan for energy demand reduction and heat decarbonisation of buildings across their area, in a phased approach to planning area-based delivery programmes to help achieve the national objectives of SEEP.
- **Section B** consults on a regulatory framework for district heating, including: area-based zoning for district heating through LHEES; granting of concessions for district heating networks; licensing of district heating networks; connecting supply; surplus industrial heat, and consumer protection.

<sup>1</sup> These consultations are available at: <a href="www.gov.scot/consultation">www.gov.scot/consultation</a>. Future consultations including on specific aspects of the SEEP programme will also be available here.

We would like to hear your views and give you an opportunity to inform our proposals. This paper covers a range of complex issues and we appreciate there is a lot to consider. We will take the views and evidence provided in response to this scoping consultation and use them to inform the decisions that we take on the detail of how to deliver our policy objectives – and further detailed consultations will then follow on different aspects of our approach.

## The role of district heating, and the potential that regulation could play in supporting it

District heating is a mature technology used in many cities across Europe which is not yet common in the United Kingdom, in spite of attempts in the past to develop it.

District heating could make an important contribution to meeting Scotland's future heat demand in areas where heat density is sufficiently high to develop networks that can provide heat at an affordable cost. Where allied to a low carbon heat source, it also offers the potential to meet our heat decarbonisation objectives.

The Scottish Government vision is to achieve a significant change in deployment of affordable low carbon district heating as part of the route to a largely decarbonised heat system, moving from the current approach to a more strategically planned, integrated and comprehensive system that is attractive for investors and that takes into account heat user's needs.

To realise our ambition for a substantial increase in district heating in Scotland we want to ensure that SEEP is planned and programmed to achieve its broad objectives to reduce energy demand and decarbonise heat supply in our buildings. This will involve a close relationship between the Scottish Government's national objectives and local planning and delivery of programmes by local authorities and their partners. An agreed framework for regulation of district heating, and mechanisms to achieve coordination across the various stakeholders, will help to give certainty for the development of district heating networks. Currently, many of the existing heat networks in this country often consist of groups of buildings under single ownership; for example, campuses and blocks of flats owned by one local authority or housing association.

As the capital investment is the largest investment in any heat network, and finding low cost capital is currently a major hurdle for any new project, reducing the cost of capital to something akin to that seen in other regulated utilities could support the development of more networks. District heating which costs less to build should also result in cheaper prices for heat users. The Scottish Government is seeking views on whether a regulatory framework can be established in support of this vision in which heat network development can be coordinated, risks can be managed to reduce the cost of capital and heat users and other relevant parties are satisfied with the system.

Given that the majority of our heat infrastructure is delivered locally, this regulatory framework should include provisions to ensure that local strategies for heat and energy efficiency are developed to integrate programmes for heat supply decarbonisation with energy efficiency programmes. It is important that infrastructure does not become needlessly oversized in areas where energy efficiency measures will reduce the heat demand. This will ensure a coordinated approach to energy demand reduction and heat decarbonisation through SEEP.

#### **Approach**

We are looking for further evidence and stakeholder views on the recommendations of the Expert Commission's SWG, plus wider evidence, in order to scope our policy for regulation of heat and energy efficiency strategies, and regulation of district heating and also support wider regulation on energy efficiency planned under SEEP (and in related consultations).

We propose that a new regulatory framework for heat and energy efficiency strategies, and for regulation of district heating, should focus on two key areas. These are:

- A. that local authorities are required to create Local Heat & Energy Efficiency Strategies (LHEES) to support the delivery of heat decarbonisation and energy efficiency objectives of Scotland's Energy Efficiency Programme (SEEP); and
- B. that regulation be put in place to specifically support the development of district heating, including provisions for zoning of areas for heat networks, connecting users and surplus heat loads, technical standards and consumer protection.

These areas are discussed in Sections A and B of the consultation document.

#### Section A – Local Heat & Energy Efficiency Strategies

In Section A, we set out that we are considering placing a statutory duty upon local authorities to work with relevant stakeholders to develop a LHEES, and to use their powers to implement that strategy, to support the delivery of the objectives of SEEP. These strategies would have a scope and content as set out below. Local authorities would be supported in developing these strategies with the provision of national guidance and data sets, such as the Scotland Heat Map.

In Section A, we suggest that LHEES should develop an area-based approach and that strategies should:

- a) cover a long-term period such as 20 years;
- b) reflect the national fuel poverty and climate change targets and set out how they contribute to them;
- c) take into account other national targets and ambitions in respect of heat and energy efficiency as set out in the Scottish Government's policies such as the draft Energy Strategy, Climate Change Plan and SEEP, including the indicative levels of implementation and to set out how they contribute to these;
- d) take into account what policies and frameworks already exist for energy efficiency and heat at a local level, such as local housing strategies or local development plans;
- e) set out understanding of current energy performance and heat use of buildings within the local authority's area;
- f) identify potential opportunities including for reducing the need for heat, improving energy efficiency of heat supply, increasing low carbon heat sources and low carbon heat storage;
- g) set long-term targets to ensure that all buildings in the local authority's area are able to improve their energy efficiency and decarbonise their heat supply in line with national objectives set by the Scottish Government;

- h) undertake an area-based socio-economic assessment that would be used to assess the energy efficiency interventions and to identify the most appropriate heat technology for an area and to designate district heating zones;
- i) set out costed, phased delivery programmes for each strategy period, to
  ensure that a proportion of buildings in the local authority's area are improved
   cumulatively ensuring that all buildings are improved across all strategy
  periods to meet the long-term target;
- j) include the phased zoning of different parts of each local authority for:
  - development of district heating networks in appropriate areas (see Section B)
  - installation of new low carbon heat supplies
  - area-based energy efficiency improvement programmes;
- k) quantify the short-term benefits and impacts of delivery plans; and
- I) consider the impact on the local economy and employment.

These phased delivery programmes would:

- a) take account of potential support from wider programmes;
- b) support the delivery of national standards;
- c) for the early years of the strategy (such as the first 5) set out the detail of the approach or 'offer' to properties in those prioritised areas to enable them to improve their energy efficiency and decarbonise their heat supply; and
- d) set out how the local authority (and the local planning authority) will use its powers to help deliver the strategy).

The consultation asks a series of questions to allow stakeholders to set out their views on this potential framework for LHEES to support the delivery of the objectives of SEEP.

#### Section B – District Heating Regulation

In Section B, we set out a potential regulatory scenario that has been informed by the advice of the Short Life Working Group, which would help district heating to achieve its full potential. This regulatory scenario aims to transform the way heat networks are developed in Scotland by:

Establishing district heating zones to enable coordination between building owners, heat network developers and public authorities around an agreed long-term plan for district heating development. These zones would articulate objectives around decarbonisation, fuel poverty and energy system resilience. They would be subject to socio-economic assessment at the Strategy level, and would be part of the overall programme for energy efficiency and heat decarbonisation set out by local authorities in their Local Heat & Energy Efficiency Strategies.

- Creating concessions and provisions for connecting users to district heating
  networks within these zones to align heat network development with public
  objectives and to minimise the risk of stranded assets, including through socioeconomic assessment at the project level. Reducing risk is key to lowering the
  cost of capital, which in turn will lower district heating supply prices.
- Revealing and exploiting opportunities to make use of low cost, low carbon surplus heat from industrial processes and power generation that would otherwise be wasted.
- Setting minimum technical and consumer protection standards for district
  heating which will be enforced through a licensing system, including socioeconomic assessment at the project level of impact on customer energy bills.

The consultation asks a series of questions to allow stakeholders to set out their views on this potential regulatory framework for district heating to support our objectives of enabling district heating to reach its full potential in Scotland.

#### FURTHER POLICY DEVELOPMENT AND CONSULTATION TO INFORM REGULATION

The evidence received in response to this consultation document will enable us to scope out the broad policy needed to enable regulation of district heating and LHEES. This evidence will then be used to allow Ministers to take decisions during 2017, on the extent of district heating regulation required. We would then propose to follow up with a more detailed consultation, or consultations, setting out our preferred approach to regulation and on LHEES, for further comment and testing with stakeholders in late 2017. Evidence from this second round of consultation would be used to inform Ministers' final decisions on whether any legislation (primary and/or secondary) would be needed for district heating regulation and LHEES. Where new legislation is required, further consultation on a draft Bill or draft Scottish Statutory Instruments would take place prior to introduction in the Scottish Parliament.

Introduction

## INTRODUCTION

1. This is a Scottish Government consultation paper on local heat & energy efficiency strategies, and regulation of district heating. It is one of a number of consultations on the draft Climate Change Plan, the draft Energy Strategy and related activity published in January 2017<sup>2</sup>.

- 2. Your views are invited on the role that regulation could play in both:
  - supporting the development of district heating in Scotland; and
  - the planning at local level of heat decarbonisation and energy efficiency programmes within our new Scotland's Energy Efficiency Programme (SEEP), which is due to begin from 2018 onwards.
- 3. We are interested to understand how you think that regulation could ensure that SEEP improves and enhances our existing programme to make our homes and places of work a more comfortable temperature; promote more affordable energy for consumers; help to tackle fuel poverty; improve competitiveness of the Scottish economy; create substantial market and supply chain opportunities; and contribute to meeting our climate change targets through the deployment of low carbon heat supply. This consultation will be considered alongside the parallel consultations on the Scottish Government's draft Energy Strategy and Climate Change Plan, which set out the wider strategic vision for reduction of energy demand and the decarbonisation of heat, alongside specific consultation on scenarios for delivering SEEP.
- 4. We would like to hear your views and give you an opportunity to inform our proposals. This paper covers a range of complex issues and we appreciate there is a lot to consider. This is why we wanted to set out these ideas in this **policy scoping consultation** at an early stage, to ensure we develop impactful regulation and potential future legislation, if needed to enable this. We will take the views and evidence provided in response to this scoping consultation and use it to inform the decisions that we take on the detail of how to deliver our policy objectives and further detailed consultations will then follow on different aspects of our approach.
- 5. Background information is set out in each section with questions set out to assist you in framing your consultation response. However, in responding to this consultation paper, please do not feel constrained by the questions set. We would also like to hear your views on any potential impact of the proposals.

#### **POLICY PURPOSE**

6. In June 2016, a special working group of the Scottish Government's Expert Commission on District Heating (from here on 'the Expert Commission's SWG') made recommendations on the role that regulation could play in supporting the Scottish Government's vision and ambition for district heating in Scotland. The report concluded that regulation could play an important role in providing confidence for the district heating supply chain to invest in Scotland.

These consultations are available at: <a href="www.gov.scot/consultation">www.gov.scot/consultation</a>. Future consultations including on specific aspects of the SEEP programme will also be available here.

- 7. As the Scottish Government's Heat Policy Statement published in 2015 set out, heat is at the core of Scotland's energy system. It is the biggest element of our energy use (over 55%), and the largest source of our emissions (47%). We spend £2.6 billion annually on heating and cooling our homes and businesses in Scotland<sup>3</sup>. The Scottish renewable heat sector is growing with an estimated turnover of £2.7 billion by 2020. The Scottish Government is committed to largely decarbonising our energy system by 2050, at an affordable price to consumers through maintaining and developing secure supplies of energy, and to reducing overall demand for energy in the energy system, by reducing demand for heat. Our broad approach to reducing energy demand is set out in our **Energy Strategy**, of which this consultation forms an annex.
- 8. We have done a lot already to reduce heat demand. We have invested and recycled over £45 million since 2007 to support Scottish households, businesses and organisations to finance the implementation of energy efficiency and renewable measures and the development of district heating schemes, generating loans in excess of £65 million to over 4,000 applicants. The Scottish Government has already allocated over half-a-billion pounds since 2009 on a raft of fuel poverty and energy efficiency programmes which has already made hundreds of thousands of homes, businesses and public buildings warmer and more affordable to heat. Nearly 1 in 3 of all households (over 700,000) have now received energy efficiency support.
- 9. Scottish Ministers announced in June 2015 that they would take long-term action to reduce the energy demand of our residential, services and industrial sectors through designating energy efficiency as a national infrastructure priority, as subsequently confirmed in the Scottish Government's Infrastructure Investment Plan 2015. Ministers announced that the cornerstone of this will be Scotland's Energy Efficiency Programme (SEEP) which is under development prior to commencement from 2018. It will be a coordinated programme to improve the energy efficiency of homes and buildings in the commercial, public and industrial sectors.
- 10. The overarching vision set out in the draft Energy Strategy and Climate Change Plan is to go beyond our existing commitments to deliver a systemwide decarbonisation of heat supply and reduction of energy demand across all our buildings (Residential, Services, and Industry) through SEEP.
- 11. The Programme for Government also commits the Scottish Government to bring forward consultations to inform the development of SEEP, including:
  - the regulation of private rented sector housing to increase efficiency standards;
  - heat regulations commensurate with the scale of the heat market; and
  - phased regulation of other existing buildings to bring them up to higher energy efficiency standards as well as look at financial incentives.
- 12. A Short Life Working Group on Heat Regulation (referred to from here on as 'the Working Group') was established by the Minister for Business, Innovation & Energy in September 2016, to advise on regulatory scenarios. The outcomes of this group have informed this consultation on district heating and local strategy development of heat and energy efficiency.

<sup>3</sup> The Scottish Government, (2015) 'Heat Policy Statement Towards Decarbonising Heat: Maximising the Opportunities for Scotland', p.2 See: http://www.gov.scot/Publications/2015/06/6679

## CONSULTATION ON HEAT AND ENERGY EFFICIENCY STRATEGIES, AND REGULATION OF DISTRICT HEATING: PROPOSALS

#### **DISTRICT HEATING**

- 13. District heating is a mature technology used in many cities across Europe which is not yet common in the United Kingdom in spite of attempts in the past to develop it. The differences between heat and other regulated sectors mean that power and gas models cannot just be transposed and also that economies of scale such as ensuring that there is a viable infrastructure to bear costs will be crucial alongside long-term commitment to continue using that infrastructure. District heating could make an important contribution to meeting Scotland's future heat demand in areas where heat density is sufficiently high to develop networks that can provide heat at an affordable cost. Where allied to a low carbon heat source, it also offers the potential to meet our heat decarbonisation objectives.
- 14. The United Kingdom (UK) National Comprehensive Assessment of District Heating and Cooling (2015), required by the European Union (EU) Energy Directive 2012, estimated that 4TWh p.a. (7%) of Scotland's total heat demand in 2025 could be met by district heating and cooling on a socially costeffective basis<sup>4</sup>. The UK Committee on Climate Change estimates that by 2050, district heating could supply up to 20% of the UK's total building heat demand<sup>5</sup>.
- 15. The Scottish Government and its partners have already done a significant amount to support the development of district heating in Scotland. We have:
  - established the Heat Network Partnership to coordinate support identifying and developing district heating projects and a strategic approach by local authorities, to build capacity, and to share best practice;
  - created, regularly updated and improved Scotland's Heat Map, with versions available to the public<sup>6</sup> and to local authorities and other key public sector partners;
  - worked with the UK Government to submit results of the National Comprehensive Assessment to the EU;
  - established the District Heating Loan Fund, offering low rate, unsecured capital loans to overcome a range of technical and financial barriers, with a budget of £7 million in 2016/17;
  - launched the Low Carbon Infrastructure Transition Programme (LCITP) to support the acceleration of low carbon infrastructure projects across the public, private and community sectors. LCITP can support the development of investment grade business cases to help projects secure public and private capital finance and can provide financial support for capital<sup>7</sup>;

<sup>4</sup> https://www.gov.uk/government/publications/the-national-comprehensive-assessment-of-the-potential-for-combined-heat-and-power-and-district-heating-and-cooling-in-the-uk

<sup>5</sup> Committee on Climate Change (October 2016) Next steps for UK heat policy, p.30 <a href="https://www.theccc.org.uk/wp-content/uploads/2016/10/Next-steps-for-UK-heat-policy-Committee-on-Climate-Change-October-2016.pdf">https://www.theccc.org.uk/wp-content/uploads/2016/10/Next-steps-for-UK-heat-policy-Committee-on-Climate-Change-October-2016.pdf</a>

<sup>6 &</sup>lt;u>www.gov.scot/heatmap</u>

<sup>7</sup> See <a href="http://www.gov.scot/Topics/Business-Industry/Energy/Action/lowcarbon/LCITP">http://www.gov.scot/Topics/Business-Industry/Energy/Action/lowcarbon/LCITP</a> for details of projects supported and invitations for projects on particular themes such as the large-scale water source heat pump challenge and the transformational low carbon infrastructure demonstrator.

- partnered with the Danish Government and other EU countries on the Stratego project, drawing on international best practice to support the development of effective national and local heating and cooling plans;
- worked with the UK Government, industry and consumer groups on development and implementation of both statutory and voluntary regulation of district heating, such as the Heat Networks (Metering and Billing) Regulations 2016<sup>8</sup>, the Heat Trust<sup>9</sup> and the Heat Networks: Code of Practice for the UK<sup>10</sup>; and
- set out national planning policy encouraging the development of district heating through local development plans.
- 16. In developing SEEP, we are also now funding a range of pilot projects to test different approaches to the local planning of integrated energy efficiency and heat decarbonisation programmes across residential, commercial and public buildings, including through the development of district heating.

#### The role that regulation could play in supporting this work

- 17. To realise our ambition for a substantial increase in district heating in Scotland we want to ensure that SEEP is planned and programmed to achieve its broad objectives to reduce energy demand and decarbonise heat supply in our buildings. This will involve a close relationship between the Scottish Government's national objectives and local planning and delivery of programmes by local authorities and their partners. An agreed framework for regulation of district heating, and mechanisms to achieve coordination across the various stakeholders, will help to give certainty for the development of district heating networks. Currently, many of the existing heat networks in this country often consist of groups of buildings under single ownership; for example, campuses and blocks of flats owned by one local authority or housing association.
- 18. The Scottish Government vision is to achieve a significant change in deployment of affordable low carbon district heating as part of the route to a largely decarbonised heat system, moving from the current approach to a more strategically planned, integrated and comprehensive system that is attractive for investors and that takes into account heat user's needs. As the capital investment is the largest investment in any heat network, and finding low cost capital is currently a major hurdle for any new project, reducing the cost of capital to something akin to that seen in other regulated utilities could support the development of more networks. District heating which costs less to build should also result in cheaper prices for heat users. The Scottish Government is seeking views on whether a regulatory framework can be established in support of this vision in which heat network development can be coordinated, risks can be managed to reduce the cost of capital and heat users and other relevant parties are satisfied with the system.

<sup>8</sup> For details see <a href="https://www.gov.uk/guidance/heat-networks">https://www.gov.uk/guidance/heat-networks</a>

<sup>9</sup> Heat Trust, launched November 2015, sets a common standard in the quality and level of customer service that heat suppliers should provide their customers. Details at <a href="http://www.heattrust.org/">http://www.heattrust.org/</a>

<sup>10</sup> CP1; Heat Networks Code of Practice for the UK (CIBSE) <a href="http://www.cibse.org/Knowledge/knowledge-items/detail?id=a0q200000090MYHAA2">http://www.cibse.org/Knowledge/knowledge-items/detail?id=a0q200000090MYHAA2</a>

19. This is an opportunity to reduce, and not just redistribute, the risks associated with district heating development in terms of cost, reliability and augmentation with other technologies and innovation, (such as the use of surplus industrial heat in suitable cases to provide a low cost, low carbon source for district heating).

#### **CONSIDERATIONS**

- 20. There are many challenges. For example, while the Scottish Government would not want to stifle innovation by restricting district heating development to a single model, it is also extremely important that district heating develops in a way that ensures there is a wider strategic perspective attached to every project. The Expert Commission's SWG and the Working Group have recommended that district heating requires a clear and consistent regulatory framework that allows heat networks to develop on a greater scale than at present, and to see existing and future networks become progressively more interlinked.
- 21. Given that the majority of our heat infrastructure is delivered locally, this regulatory framework should include provisions to ensure that local strategies for heat and energy efficiency are developed to integrate programmes for heat supply decarbonisation with energy efficiency programmes. It is important that infrastructure does not become needlessly oversized in areas where energy efficiency measures will reduce the heat demand. This will ensure a coordinated approach to energy demand reduction and heat decarbonisation through SEEP.
- 22. This is also an opportunity to explore how as a Government, we ensure that in future, district heating networks become a more attractive proposition for homes, businesses and public sector buildings. While introducing a requirement to connect mitigates risk, which would thereby make prices lower and the offer of connection more attractive, this requirement also brings issues for consideration around consumer choice and consumer protection.

  We would ask you to consider these issues within your response.

#### **APPROACH**

- 23. We are looking for further evidence and stakeholder views on the recommendations of the Expert Commission's SWG, plus wider evidence, in order to scope our policy for regulation of heat and energy efficiency strategies, and regulation of district heating and also support wider regulation on energy efficiency planned under SEEP (and in related consultations).
- 24. We propose that a new regulatory framework for heat and energy efficiency strategies, and for regulation of district heating, should focus on two key areas. These are:
  - A. that local authorities are required to create Local Heat & Energy Efficiency Strategies (LHEES) to support the delivery of heat decarbonisation and energy efficiency objectives of Scotland's Energy Efficiency Programme (SEEP); and
  - B. that regulation be put in place to specifically support the development of district heating, including provisions for zoning of areas for heat networks, connecting users and surplus heat loads, technical standards and consumer protection.
- 25. These greas are discussed in Sections A and B below.

#### FURTHER POLICY DEVELOPMENT AND CONSULTATION TO INFORM REGULATION

26. The evidence received in response to this consultation document will enable us to scope out the broad policy needed to enable regulation of district heating. This evidence will then be used to allow Ministers to take decisions during 2017, on the extent of district heating regulation required. We would then propose to follow up with a more detailed consultation, or consultations, setting out our preferred approach to regulation and on LHEES, for further comment and testing with stakeholders in late 2017. Evidence from this second round of consultation would be used to inform Ministers' final decisions on whether any legislation (primary and/or secondary) would be needed for district heating regulation and LHEES. Where new legislation is required, further consultation on a draft Bill or draft Scottish Statutory Instruments would take place prior to introduction in the Scottish Parliament.

## SECTION A. LOCAL HEAT & ENERGY EFFICIENCY STRATEGIES TO SUPPORT DELIVERY OF ENERGY EFFICIENCY AND HEAT OBJECTIVES OF SEEP

#### A1. CURRENT POSITION

- 27. Currently local authorities are encouraged, with support from the Heat Network Partnership, on a voluntary basis to develop district heating strategies, or to include a district heating element in wider strategies or plans such as Sustainable Energy Action Plans. Additionally, the Scottish Planning Policy sets out that Local Development Plans should use heat mapping to identify the potential for co-locating developments with a high heat demand with sources of heat supply and should identify where heat networks, heat storage and energy centres exist or would be appropriate and include policies to support their implementation<sup>11</sup>.
- 28. Local authority Housing Strategies also generally tend to include some high-level information on the authority's approach to addressing climate change and fuel poverty for the area's housing stock.
- 29. This has led to a wide range of approaches from local authorities which have varied in their effectiveness with regard to district heating. Some have done little to identify opportunities and support development of district heating. Others have mapped areas of opportunity within their Local Development Plans and developed supportive policies and/or are on the verge of publishing district heating strategies setting out priority projects identified, mapped and with a delivery programme.
- 30. With the recommendation of the Expert Commission's SWG that each local authority is required to develop and publish a strategic plan for developing district heating, and the development of the SEEP programme, there is an opportunity to create a new regulatory framework to ensure the development of local strategies that take into account reduced future heating needs by also programming energy efficiency and other heat decarbonisation activity. This coordinated strategic approach will be key for Scotland to meet our climate change targets as set out in our draft Climate Change Plan, which shows that by the mid-2030s there will need to be almost complete decarbonisation of our buildings, requiring significant reductions in our use of natural gas, which is currently our main source of heat, and other fossil fuels.

<sup>11</sup> See Scottish Planning Policy (http://www.gov.scot/Publications/2014/06/5823) section on A Low Carbon Place for full text.

31. In response to these recommendations, and in developing SEEP, the Scottish Government is now considering the introduction of a statutory duty for local authorities to develop Local Heat & Energy Efficiency Strategies (LHEES). These would set a framework and delivery programme for how each local authority would both reduce the energy demand and decarbonise the heat supply of buildings in its area, across the timeframe of the strategy, to ensure progress against the national objectives of SEEP. Below, we set out our initial proposals on what these would contain, and how they could be delivered to support our heat decarbonisation and energy efficiency objectives.

## A2. KEY COMPONENTS OF A POTENTIAL REGULATORY FRAMEWORK FOR LOCAL HEAT & ENERGY EFFICIENCY STRATEGIES

- 32. The Working Group discussed an approach for Local Heat & Energy Efficiency Strategies whereby:
  - guidance for LHEES would be set nationally to ensure a consistent approach to them delivering the national programme objectives for SEEP, including on strategy level socio-economic assessment;
  - a number of key organisations should be included in the guidance as organisations invited to provide input or that may be statutory consultees;
  - some form of scrutiny of LHEES would be required centrally by ministers or another central body (to ensure that the guidance had been adhered to and that, when taken together, LHEES would achieve the changes required); and
  - LHEES are updated regularly, to ensure that the LHEES remain up-to-date, should wider infrastructure changes occur. Each LHEES would include a delivery programme for its duration, setting out how the local authority would achieve its heat decarbonisation and energy efficiency objectives for buildings in its area, to ensure programme implementation. A number of alternative updating timescales have been suggested including every five years or every three years for the delivery plan and six, nine or 10 years for the rest of the LHEES.

#### A3. SCOPE AND CONTENT

- 33. A balance needs to be found between making the scope and content of the strategies narrow enough to allow for maximum resource to be focused on delivery, but sufficiently wide to enable the vision to be communicated to the local community without the risk that the strategy preparation becomes the main focus rather than delivery. At the same time, the legislative competence of the Scottish Parliament is a restrictive factor, if these strategies are to be a requirement upon local authorities.
- 34. The focus of SEEP as a national programme is on energy demand reduction and heat decarbonisation of buildings. Therefore, it is suggested that LHEES should focus on how to reduce demand for and decarbonise energy used for space and water heating and cooling in buildings, but also considering the implications for processes such as cooking. This would entail strategies that considered both how to improve the energy performance of buildings, and how to decarbonise their heat supply, and should consider availability of surplus industrial and other potential low carbon heat to provide the supply.

- 35. It has been suggested that LHEES should develop an area-based approach and that strategies should:
  - a) cover a long-term period such as 20 years;
  - b) reflect the national fuel poverty and climate change targets and set out how they contribute to them;
  - c) take into account other national targets and ambitions in respect of heat and energy efficiency as set out in the Scottish Government's policies such as the draft Energy Strategy, Climate Change Plan and SEEP, including the indicative levels of implementation and to set out how they contribute to these;
  - d) take into account what policies and frameworks already exist for energy efficiency and heat at a local level, such as local housing strategies or local development plans;
  - e) set out understanding of current energy performance and heat use of buildings within the local authority's area;
  - f) identify potential opportunities including for reducing the need for heat, improving energy efficiency of heat supply, increasing low carbon heat sources and low carbon heat storage;
  - g) set long-term targets to ensure that all buildings in the local authority's area are able to improve their energy efficiency and decarbonise their heat supply in line with national objectives set by the Scottish Government;
  - h) undertake an area-based socio-economic assessment that would be used to assess the energy efficiency interventions and to identify the most appropriate heat technology for an area and to designate district heating zones:
  - j) set out costed, phased delivery programmes for each strategy period, to ensure that a proportion of buildings in the local authority's area are improved – cumulatively ensuring that all buildings are improved across all strategy periods to meet the long-term target;
  - k) include the phased zoning of different parts of each local authority for:
    - development of district heating networks in appropriate areas (see Section B)
    - installation of new low carbon heat supplies
    - area-based energy efficiency improvement programmes;
  - I) quantify the short-term benefits and impacts of delivery plans; and
  - m) consider the impact on the local economy and employment.
- 36. These phased delivery programmes would:
  - a) take account of potential support from wider programmes;
  - b) support the delivery of national standards;
  - c) for the early years of the strategy (such as the first five) set out the detail of the approach or 'offer' to properties in those prioritised areas to enable them to improve their energy efficiency and decarbonise their heat supply; and

- d) set out how the local authority (and the local planning authority) will use its powers to help deliver the strategy).
- 37. We are considering placing a statutory duty upon local authorities to work with relevant stakeholders to develop a LHEES, and to use their powers to implement that strategy. These strategies would have a scope and content as set out above. Local authorities would be supported in developing these strategies with the provision of national guidance and data sets, such as the Scotland Heat Map.
- 38. It will be important for local authorities to have the skills and resource to prepare and deliver such strategies and for the appropriate parts of a local authority (and where relevant national park authorities<sup>12</sup>) to be involved in the development and delivery of the strategy. We recognise that preparation and implementation of these strategies represents an additional burden on local authorities and seek your views on the skills, resource and support that may be needed by local authorities in section B6.

#### **Questions**

- Q1. Do you agree that local authorities should have a duty to produce and implement a Local Heat & Energy Efficiency Strategy (LHEES) as outlined above? Please explain your view.
  - Q1b. What are your views on the appropriate geographical scale for the preparation of LHEES? Should each local authority produce a single strategy for its area, or would it be possible for local authorities to work together to prepare strategies jointly for a wider area?
- Q2. Do you agree with the proposed scope and content for LHEES? In particular do you agree LHEES should (a) set targets for energy efficiency and decarbonisation and (b) include a costed, phased delivery programme that will meet local targets? Please explain your views.
- Q3. Please provide any evidence you have regarding the data available (or that could be available) to local authorities that would be useful or key to preparing and implementing such plans beyond the Scotland Heat Map and the EPC Register (including data held both within and outwith the public sector).

<sup>12</sup> The 32 local authorities and two national park authorities make up the 34 local planning authorities in Scotland.

## SECTION B: DISTRICT HEATING REGULATION

#### B1. CURRENT POSITION AND OVERVIEW OF PROPOSED REGULATORY APPROACH

39. District heating is a shared energy infrastructure which is usually most effective when supplying all or a high proportion of buildings in an area. The costs of constructing a heat network are higher than other energy distribution networks, but these upfront costs can be offset by feeding in low cost and low carbon heat sources that otherwise couldn't be used. For this offset to cover upfront costs, the network must be used for many years. This is eminently possible with modern heat network technologies which have lifetimes of fifty years or more. Effective development of district heating therefore requires considerable coordination across a range of different stakeholders and a high degree of confidence in the long-term use of the system.

#### Proposed regulatory approach

- 40. As outlined above, the Scottish Government and its partners have already done a significant amount to support the development of district heating in Scotland. We have seen good progress in the development of projects, and rising levels of deployment, but recognise that in order to go further, there is likely to be a role for regulation to help district heating achieve its full potential. This regulatory scenario aims to transform the way heat networks are developed in Scotland by:
  - Establishing district heating zones to enable coordination between building owners, heat network developers and public authorities around an agreed long-term plan for district heating development. These zones would articulate objectives around decarbonisation, fuel poverty and energy system resilience. They would be subject to socio-economic assessment at the Strategy level, and would be part of the overall programme for energy efficiency and heat decarbonisation set out by local authorities in their Local Heat & Energy Efficiency Strategies (see Section A, above).
  - Creating concessions and provisions for connecting users to district heating networks within these zones to align heat network development with public objectives and to minimise the risk of stranded assets, including through socio-economic assessment at the project level. Reducing risk is key to lowering the cost of capital, which in turn will lower district heating supply prices.
  - Revealing and exploiting opportunities to make use of low cost, low carbon surplus heat from industrial processes and power generation that would otherwise be wasted.
  - Setting minimum technical and consumer protection standards for district heating which will be enforced through a licensing system, including socio-economic assessment at the project level of impact on customer energy bills.

#### District heating zones

41. The Scottish Government recognises that in order to deliver such a scenario, a range of different organisations (both public and commercial sector) would need to take responsibility for delivering district heating according to the approach set out in the local authority's Local Heat & Energy Efficiency Strategy for each district heating zone. Socio-economic assessment at the Strategy level would ensure that the approach taken by each local authority to establishing district heating zones was consistent with national objectives on heat decarbonisation, energy demand reduction, fuel poverty and would select those areas most suitable for development of efficiency and viable district heating that would meet national thresholds.

#### Concessions

42. To achieve this, concessions to develop and operate heat networks in district heating zones could be created. Concessions could be granted to individual organisations for a set period during which they would act in accordance with the agreed strategy. Concessions would allow their holders to undertake significant long-term investment in heat networks without the risk that target users would join a competing heat network. Further detail on the approach that we are considering for district heating zones and concessions is given in Section B2.

#### Connecting users to district heating networks

- 43. In order to help to underpin the development of networks, public authorities could be given the power to compel building owners to connect to district heating where supply would meet a minimum threshold based on a project level socio-economic assessment. A concession holder could apply for this power to be exercised.
- 44. The purpose of this power would be to mitigate demand risk and it would primarily be used in relation to large buildings with high heat demand, whose heat demand is needed to anchor new district heating or significant extensions. The power would be used as a backstop to be used when other approaches have failed. Once anchored it would be easier to connect a heat network to smaller users (such as homes) without requiring them to connect. Further detail on the approach that we are considering for connecting users to district heating networks is given in Section B3.

#### Surplus heat

45. One of the great advantages of district heating is the capacity to make use of heat that would otherwise be lost, for example from industrial processes. Scottish public authorities could work with industries<sup>13</sup> to uncover opportunities for them to make valuable use of currently wasted surplus heat. This could include a requirement for industrial plant to make data available to relevant authorities about potential surplus heat available for district heating networks. These industrial plant operators could be required to explore opportunities to realise this supply, to design new plant as 'district heating-ready' and to locate new plant where surplus heat could be used, with the potential for powers to be given to regulators to compel connection in situations where commercial agreement between industrial sites and heat network operators was not possible, even after mediation. Project level socio-economic assessment could be used to determine minimum thresholds for projects before they were required to connect. Further detail on the approach that we are considering for surplus heat is given in Section B4.

#### Technical and consumer protection standards

46. The Scottish Government recognises that as district heating becomes more widespread, regulation will be needed to ensure fairness between users and the operators of these natural monopolies. This would be particularly important where buildings are required to use district heating. Socio-economic assessment at the project level could set minimum thresholds before requiring connection, such as an affordability threshold to measure impact on consumer energy bills and fuel poverty. Mandatory customer protection standards, drawing on existing schemes, could be enforced by licencing of district heating operators. The concessions outlined above would only be available to licence holders. Licences could also specify Scotland-wide technical standards to ensure networks have high efficiency and can be interconnected. Further detail on the approach that we are considering to technical and consumer protection standards is given in Section B5.

<sup>13</sup> Under this scenario 'industry' is understood broadly to include a range of facilities that could supply heat to district heating. These include (but are not limited to) manufacturing plant, waste treatment, data centre, thermal generation of electricity and production of biogas and hydrogen. The diversity of issues relevant to this range would be explored in further policy development and consultation.

#### Principles to guide our regulatory approach to district heating

- 47. In order to ensure that a regulatory approach for district heating in Scotland can meet the many objectives that it would need to support, we are considering the following broad principles to guide our development of a regulatory framework. We would want to ensure that:
  - overall heat demand is reduced;
  - overall heat supply is decarbonised;
  - district heating supplied is affordable to customers and building owners and meets our fuel poverty objectives;
  - district heating networks are feasible and investible for public and private sector developers;
  - district heating networks are developed in a way that minimises risk;
  - heat customers / building owners have the information that they need to make choices on their future heat supply;
  - wastage of surplus industrial heat is minimised;
  - the burdens of district heating regulation are outweighed by their benefits;
  - · district heating regulations are fair, transparent and robust; and
  - the right balance between choice and compulsion is struck, given the liberalised nature of the wider energy market.

#### Question

Q4. What are your views on the broad principles for regulation outlined above? What else do we need to consider? What should be prioritised in cases where principles may not always be compatible?

#### Managing risk through our regulatory approach

48. We recognise that there is a range of different categories of risk that any district heating regulatory approach will have to manage. Scottish Futures Trust Guidance<sup>14</sup> identifies a range of risks identified below:

**Design risk** – the risk associated with the impacts on a project of deficiencies in design (such as of heat mains, energy centres, control systems, internals);

**Construction risk** – the risks associated with the building of physical assets to a specified design;

**Operational risk** – the risk associated with operating and maintaining assets to meet specified requirements;

<sup>14</sup> The Scottish Futures Trust (2015) 'Guidance on Delivery Structures for District Heating', <a href="http://www.districtheatingscotland.com/sites/default/files/SFT%20DH%20Delivery%20Structure%20Report%20%28v1%20-%2016%20Mar%2020015%29">http://www.districtheatingscotland.com/sites/default/files/SFT%20DH%20Delivery%20Structure%20Report%20%28v1%20-%2016%20Mar%2020015%29</a> 0.pdf

**Demand/Market risk** – the risk associated with variances from anticipated demand – such as heat loads fail to materialise, or connection of loads to the network is significantly delayed, or loads choose to disconnect from the network or heat demand reduces through energy efficiency measures or warmer winters

**Performance risk** – the risk associated with being able to supply customers to an agreed performance/service standard – such as due to demand being greater than forecast, or heat output being less than anticipated for the heat generation source(s);

**Financial risk** – various financial risks capable of producing financial loss, including credit risk, interest rate movements, exchange rate risk, customer debt; and

**Regulatory risk** – the risk associated with changes to the legal/regulatory framework adversely impacting a project (such as planning control, metering, billing, consumer protection, technical standards).

In addition, there may be other risks, such as around the extent to which granting exclusive rights or monopoly powers creates risks for competition; risks associated with interconnection of existing heat networks and its effect on price and competition; risks for existing network operators of new regulation such as concessions impacting on their existing business model; or the risks associated with surplus heat offtake where industrial sites may face additional cooling costs for their principal industrial processes if the heat network is not operations.

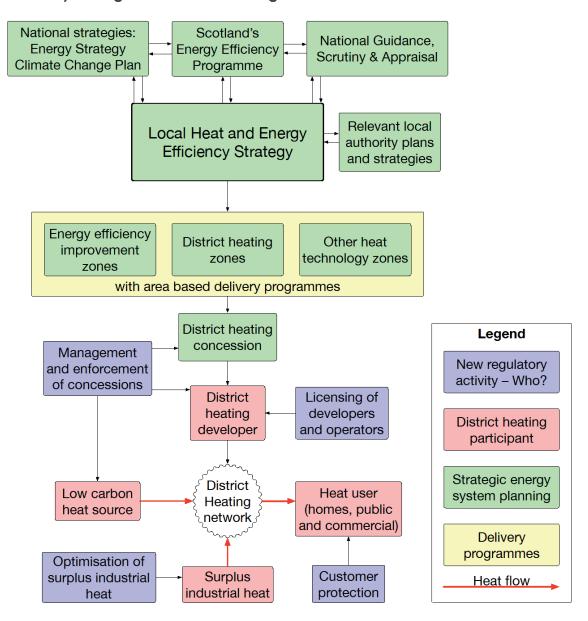
Throughout this document, we have attempted to set out in the different parts of the regulatory approach which we are considering, how risk might be managed, and to seek stakeholders' views on the best way to do this.

At the level of our overall regulatory approach, we are keen to understand how best to manage risk for different actors across the regulatory system. One of the benefits in reducing these risks may be to lower the cost of capital, the major investment in district heating, and so lower the costs for heat users.

#### Question

Q5. What are the key principles or approaches that should inform how our regulatory approach manages risk for district heating across the whole system?

Figure 1: Structure of scenario of how potential regulation on Local Heat & Energy Efficiency Strategies and district heating



#### **B2. PLANNING, ZONING AND CONCESSIONS FOR DISTRICT HEATING**

#### **B2.1** Current position and reasons for intervention

- 49. In the absence of LHEES, heat network development in Scotland has had an ad hoc character. It has not been possible to take advantage of all opportunities, due to coordination difficulties, and those networks that have developed have usually connected buildings under the control of a single organisation. Heat networks in Scotland have responded to the needs of specific organisations (such as a social housing provider or a university). By contrast, heat networks in many European cities fulfil objectives that are not specific to particular organisations, such as minimising exposure to oil price fluctuations in Denmark in the 1980s or maximising the energy efficiency of waste incineration in Norway over recent years. Decarbonisation and a stable, managed energy transition are objectives that are not tied to specific heat users, but they need mechanisms of the sort proposed below to translate them into action.
- 50. The Expert Commission's SWG noted the early history of energy network development in the UK was characterised by fragmentation. Patchworks of unconnected gas and electricity grids were less efficient than their more integrated counterparts in Europe. The Scottish Government recognises that we have an important opportunity now to construct a planning and regulatory regime that ensures similar mistakes are avoided with district heating. Integrated networks will maximise the efficiency of district heating and thereby minimise the costs of decarbonisation and heat supply.
- 51. We also recognise that in order to realise the outcomes set out in our Climate Change Plan, we need to ensure that heat networks do not lock heat supply in to unabated gas-fired CHP a technology that can reduce greenhouse gas emissions in the near term, but which over the long term will have to be phased out. For these reasons the Expert Commission's SWG recommended that in addition to ensuring strategic planning (Section A), that public authorities should exercise powers to meet a range of energy policy objectives and to ensure replacement of heat sources for district heating contributes to Scotland's climate change targets.

#### **B2.2 Scenario**

Zoning

52. The creation of statutory Local Heat & Energy Efficiency Strategies (Section A) could provide the framework to promote the coordinated development of district heating. In developing their LHEES, where local authorities identify that a heat network would be the most cost effective low carbon heat option over the long run (through socio-economic assessment), the area would be designated a district heating zone by the LHEES<sup>15</sup>. Building owners in these zones would anticipate connection to a system in future and be able to plan accordingly (for example, waiting for a district heating connection rather than investing in on-site low carbon heat technology that would become redundant). District heating developers would also have a clearer picture than at present of how their systems would be expected to integrate with adjacent networks, and would adopt technical and organisational configurations accordingly.

<sup>15</sup> Local authorities would also have powers to enforce this (see following text)

#### Concessions

- 53. The Scottish Government notes that coordinated development will require more than a shared understanding of where district heating will be developed. We recognise that in order to underpin LHEES and the development of heat networks in district heating zones, there would need to be a means to allow network developers to exercise rights to construct and operate networks in these zones. To enable this, we are considering the need for regulation to create a system of district heating concessions. These would allow a range of different kinds of organisation (such as commercial or public sector companies) to take on the role of delivering part of the overarching district heating strategy, and could be awarded by competitive tender. A concession would grant its holder exclusive rights (such as wayleave rights) to develop new district heating within the concession zone in line with the LHEES, ensuring investment in capacity to deliver heat to buildings across the zone is not stranded by those buildings joining a different network, or deploying a different form of low carbon heat technology. The risk of stranded assets would be further mitigated by the concession holder having the option to apply for specific buildings to be required to connect to the network (Section 59 below).
- 54. Alongside these powers a concession holder would be given certain responsibilities. Some of these would be common across heat networks and handled through a licencing system (Section 74 below). Others would be specific to the concession area and would act as key performance indicators against which the concession holder's activities would be judged. These would include:
  - expectations on the roll out of the heat network, including to areas within the concession where district heating would alleviate fuel poverty;
  - progress in lowering the carbon content of heat generation;
  - proactive engagement with opportunities to use surplus industrial heat;
  - use of heat storage to improve efficiency and contribute to wider energy systems efficiencies; and
  - integration with heat networks in adjacent zones.
- 55. Concessions could alter district heating business models. While it is important for district heating to be cost effective, in order to provide low cost heat efficiently to consumers, it may be necessary to encourage certain district heating developers to ensure that the wider objectives are achieved while still developing efficient networks. This may mean using the concessions to avoid some heat network developers targeting only the most lucrative of buildings. The user base could be agreed as part of the concession. District heating developers would compete with each other to win concessions on the basis of the quality and efficiency with which they could fulfil the concession expectations.

#### Questions

- Q6. What are your views on local authorities having the power through LHEES to zone areas for district heating? Please provide any relevant evidence.
- Q7. How should district heating zones be identified? For example, how should national targets, socioeconomic analysis, local priorities feed in to the designation of zones within the strategy?
- Q8. What are your views on taking district heating zones, or parts of district heating zones, and establishing an exclusive concession for either private- or public-sector heat network developers to fulfil that part of the LHEES? How will this alter the risk profile of district heating development?
  - Q8b. Do you agree that local authorities should be responsible for issuing and enforcing concessions in their areas? Please explain your answer.
- Q9. What considerations should inform the design of concessions (target users, envisaged network growth, concession length, etc.)? Please provide any evidence you have to support your views.
- Q10. What are the implications of zoning and concessions for existing district heating networks?
- Q11. Do you think the broad rights and responsibilities of concession holders set out in this document are appropriate? Why? Please provide any examples or evidence.
- Q12. How can a balance be struck between ensuring LHEES are responsive to changing conditions while ensuring security and stability in long-term district heating development models?
- Q13. What should happen to long-term ownership of heat network assets, post-concession?

#### **B3. CONNECTING USERS TO DISTRICT HEATING NETWORKS**

#### B3.1 Current position and reasons for intervention

- 56. Infrastructure networks tend to have 'lumpy' investment schedules and district heating is no exception. A system designed to extend to a large number of users needs to build in adequate capacity at the outset. Under existing conditions where heat network connection is voluntary and prices of fossil-based heating fuels can fluctuate, demand risks are often prohibitive to such investment. This has contributed to restricting the development of heat networks in Scotland at this stage, in many cases, to buildings controlled by a single organisation.
- 57. We have managed real progress in Scotland through the support of the Heat Network Partnership, and through good relationships between local authorities and heat network developers. However, we recognise that there are limits to what coordination under a voluntary model is able to achieve. Even where a strong financial case has been developed for a multi-organisation heat network, progress has been more challenging because shared heat supply slips down the order of priorities. Several proposed schemes in Scotland have stalled for this reason.
- 58. The Expert Commission's SWG recommended that public authorities should have the power to compel significant heat loads to connect to district heating. This would be an important power in ensuring targets in a concession area were achieved. Furthermore, as a contribution to lowering demand risk the power could support investment confidence. As investors require higher returns for taking on risk, this power could contribute to lower investment costs, which in turn would support lower heat prices, making district heating connection a more attractive proposition.

#### **B3.2 Scenario**

- 59. The Scottish Government is considering the introduction of new regulations to allow public authorities to direct buildings to connect to district heating. We recognise that there are many different approaches to how this could be done, and we would undertake further detailed policy development and consultation before proposing a specific model beyond this policy-scoping consultation. However, the power could be used as a backstop measure to be used when other approaches have been unsuccessful. Here we discuss in broad terms how such a power could work.
- 60. There are two distinct objectives a power of this kind could have. The first would be to avoid wasted investment in unused heat network capacity by ensuring heat load connects to the system. This objective would focus on large heat users whose connection would anchor significant parts of the heat network. Smaller users would share the capacity of the anchored system, so the risks associated with extending to them would be less significant and the power would be less relevant. The second objective would be to maximise the penetration of low carbon heat, and would apply to all users. At this stage in relation to existing buildings we are focusing on the first objective.
- 61. A series of tests including project level socio-economic assessment would be applied before an existing building could be compelled to connect to a heat network. The detail of these tests would be specified as policy develops and through further consultation, but we envisage three broad criteria:

- a) As recommended by the Expert Commission's SWG, the connection would have to pass a socio-economic cost effectiveness test to demonstrate that the proposed compulsory connection would be the best way of contributing to Scotland's energy policy objectives.
- b) The connection would also have to impose no detriment to the building occupants in comparison with a standard alternative, and the connection would have to demonstrate a positive business case for the district heating system.
- c) The timeframe within which a building would be required to connect would give reasonable notice to the building owner, but also be quick enough to have a positive effect on establishment and roll out of district heating. In order to achieve timescales which works for both building users and network developers, there may be a need for local authorities to have access to data on heating systems and their age in particular of large heat users which may be anchors for heat network development. The power would be exercised by local authorities for example at the request of the relevant concession holder.

#### **Questions**

#### For existing buildings

- Q14. What are your views on the opportunities and challenges in connecting anchor loads to new heat networks? In your view, will the scenario set out address these issues and accelerate district heating development? Please explain your answer.
- Q15. What are your views on the proposed power to compel existing buildings to connect to district heating?
  - Q15b. Are the broad principles and criteria appropriate? Should other principles or criteria also apply? In particular, what approach should be taken to socio-economic assessment at the project level, prior to a compulsion to connect?
  - Q15c. Do you agree that this socio-economic assessment at project level should include an assessment of the impacts on consumers of requirements to connect?
  - Q15d. Do you agree that local authorities should exercise powers to compel connection of existing buildings (for example when requested by relevant concession holders)?

Please explain your answers.

- Q16. Do you agree that mitigating risk by establishing exclusive concessions will lower financing costs and heat prices?
  - Q16b. How can these regulations be designed to best ensure this happens?
  - Q16c. What are your views on the time length of concessions in order to attract investment?
- Q17. Do you agree that compelling existing buildings to connect to district heating would mitigate heat demand risk, lower financing costs and help create an attractive investment proposition for district heating developers and financial institutions?
  - Q17b. Could you provide evidence of how much they would be lowered?
  - Q17c. How can these regulations be designed to best ensure this happens?

#### New development of buildings

- 62. New developments provide an opportunity to build low carbon heat supply in at the outset and avoid having to retrofit a solution in future. The spatial planning system has a supporting role to play here as it identifies opportunities for change and new development within development plans. Planning authorities could use LHEES to inform locations for new development identified in the development plan. Similarly LHEES could be informed by the development plan, through aligning district heating zones for new development, with development plan allocated sites. The LHEES would operate under a separate legal regime, and would not change the status of the development plan, but it could be a material consideration for planning authorities. In that sense the working between the LHEES and the development plan is iterative rather than either taking precedence.
- 63. The independent review of the planning system has recommended an infrastructure first approach to development planning, which is explored in the consultation paper 'Places, People and Planning': http://www.gov.scot/Publications/2017/01/3486. For individual planning applications, planning authorities may decide that the LHEES is a material consideration in making a decision on the application. Through LHEES, there is an opportunity to create the conditions and promote stronger support for district heating provision, including in new development. We do not suggest, however, that a LHEES district heating zone, nor district heating concession, would be needed for an individual planning application to be approved, or development plan adopted. By setting clear national guidance for the production of LHEES, and by reviewing those LHEES for approval, the Scottish Government wants to ensure a common and more robust approach to low carbon heat in new development.

#### Questions

Q18. What are your views on the relationship between LHEES and local development plans and how planning policy and development management should support the anticipated role of LHEES for new buildings?

Please explain your answer.

#### **B4. CONNECTING SURPLUS INDUSTRIAL HEAT**

#### **B4.1** Current position and reasons for intervention

64. Utilising waste industrial heat to meet heat demand could contribute to decarbonising heat in Scotland. Following the Scottish Government's heat hierarchy (set out in our Heat Policy Statement 2015<sup>16</sup>), recovering heat for reuse onsite could reduce industry's input energy costs. Selling any remaining heat to district heating networks could provide industry with a new revenue stream.

#### 65. At present, there is:

- partial provision for industry to consider supplying its surplus heat under existing environmental regulatory regimes in Scotland, administered by the Scotlish Environment Protection Agency (SEPA); and
- 2. provision for industry to voluntarily share its surplus heat data annually through a voluntary part of the Scottish Pollution Release Inventory, administered by SEPA.
- 66. However, there is no overarching economic and planning regime designed to facilitate and incentivise the utilisation of industrial waste heat. This has led to very limited amounts of surplus industrial heat being used in heat networks in Scotland while there are significant opportunities for industry and heat users to benefit.
- 67. The Expert Commission's SWG made three recommendations for industrial plants with significant usable waste heat:
  - a) that they should provide data for the Scotland Heat Map and heat to district heating networks;
  - b) that new plant should be district heating ready; and
  - c) that new plant should locate near heat demand.

<sup>16</sup> Scottish Government (2015) 'The Heat Policy Statement: Towards Decarbonising Heat: Maximising the Opportunities for Scotland' <a href="http://www.gov.scot/Publications/2015/06/6679">http://www.gov.scot/Publications/2015/06/6679</a>

#### **B4.2** Scenario

Data on surplus industrial heat

- 68. In order to ensure that we are able to make full use of our surplus industrial heat, we are considering how to ensure that Scottish public authorities would work with industries of uncover opportunities for them to make valuable use of currently wasted surplus heat. LHEES would enable industrial operators to identify opportunities to feed heat into nearby networks. In order to develop the LHEES, local authorities would better understand opportunities for district heating if they had access to data on the availability, scale, temperature and timing of surplus industrial heat in their areas. As recommended by the Expert Commission's SWG, therefore, we are considering a scenario where industrial companies would be required to make data available to public authorities such as SEPA and local authorities, concerning the potential availability, volume, temperature and timing of surplus heat they could supply and the costs of making that heat available in a usable form.
- 69. SEPA and other appropriate agencies, such as Scottish Enterprise, could then use this data to work with industries to first find ways to improve energy efficiency to minimise surplus heat, for example through onsite re-use which is likely to have higher commercial and environmental value than supplying waste heat off site to district heating. Data on the remaining potential available heat would then be used by local authorities in LHEES development, to help design district heating strategies that are able to make use of this heat.

Supplying surplus industrial heat: existing industrial plant

- 70. We recognise that for non-energy industries, heat supply would sit outside their core activities. Issues such as scheduling plant closure for maintenance are driven by other considerations. Surplus heat would contribute to lowering the cost and carbon intensity of heat, but we do not expect heat networks to generally depend solely on industrial heat without ensuring they have adequate backup provision. We therefore anticipate that surplus industrial heat, particularly from batch processes, would usually feed into district heating once networks are established and have other sources of heat to draw on. We do, however, want to avoid missing opportunities, and so would expect existing industries with surplus heat to engage with heat network development in their area to find opportunities to connect at an appropriate time.
- 71. We are considering the potential of a phased approach to regulation, which would move from an enabling phase, to a mediation phase, to a directive phase. In the first instance, the Local Heat & Energy Efficiency Strategy would identify and zone those areas of existing industrial plant where it was cost effective for them to connect to heat networks (following the approach set out in paragraphs 45 and 52, above). In this initial period, we would see an **enabling approach** to encourage industry to supply waste heat in these zones. This approach would leave parties to reach agreements for the sale of industrial waste heat according to market forces. This would allow industry to innovate and find ways to make use of valuable heat in the most suitable way according to its circumstances. This could be facilitated by the offer of voluntary mediation.

<sup>17</sup> Under this scenario 'industry' is understood broadly to include a range of facilities that could supply heat to district heating. These include (but are not limited to) manufacturing plant, waste treatment, data centre, thermal generation of electricity and production of biogas and hydrogen. The diversity of issues relevant to this range would be explored in further policy development and consultation.

72. In the medium term, we could move towards a **compulsory mediation approach**, where a public authority could be given powers to intervene to mediate and assess barriers at the request of either party which had failed to reach commercial agreement in those zones – potentially as a power of last resort to require a connection. If this approach was not successful, a more **directive approach** to require connections between industrial sites and heat networks, informed by the mediation and the zoning within the LHEES could be required. This could build on the existing cost-benefit analysis required in the Pollution Prevention and Control (Scotland) Regulations 2012.

Methodologies for such analysis may require updating, for example to ensure that use of waste heat on site is considered. In cases where a cost-benefit analysis was positive, the industrial plant would be required to connect to a heating network, or vice-versa the heating network would be required to connect to the industrial plant.

Supplying surplus industrial heat: 'district heating-ready' new industrial plant

- 73. As district heating matures and increases its penetration, we expect to see the commercial value of supplying surplus heat to district heating ultimately driving various changes in industrial practice. In addition to actual connections for existing plant, we are also considering how to ensure that new plant would be designed to be 'district heating-ready', and subsequently connect to heat networks. Locating new industrial plant near to existing or planned heat networks would help make connection to those networks affordable. Planning authorities could use LHEES to inform locations for new industrial site allocations identified in the development plan. Similarly, LHEES could be informed by the development plan through aligning district heating zones for new development, with development plan sites allocated for industry.
- 74. The LHEES would operate under a separate legal regime, and would not change the status of the development plan, but it could be a material consideration for planning authorities in identifying new areas for development, and in determining individual planning applications. In that sense the working between the LHEES and the development plan is iterative rather than either taking precedence. However, it is not anticipated that all industrial developments will be able to connect to a district heating network. Similarly, not all industrial development will occur on land identified by the development plan for industrial uses. Proposed development that does not conform to the development plan will continue to be considered on its merits<sup>18</sup>.
- 75. As we are also considering for existing industrial plant (as set out in paragraph 71 above), a regulatory power could be available to intervene or direct that new industrial plants connect to a heat network.

<sup>18</sup> There may be a range of reasons why industrial plant cannot always locate on land identified for industrial uses within the development plan. It is for the planning authority to account for the material considerations identified and come to a view as to whether the development should be granted planning permission. However, where land is identified for industrial uses, planning applications for such uses on that land will generally be supported. We also recognise that not all industrial developments will be able to connect to a district heating network, for example in areas where there are no heat networks present, or where future development of heat networks would not be viable.

76. At this stage, we are seeking high-level views on the appropriate level of regulation for surplus industrial heat. We plan to consult further in detail on how best to support these activities, including on how data provision for LHEES would work in practice, and on who would be best-placed to exercise any regulatory power to intervene or direct a connection to a heat network. We are also aware that initially pursuing an enabling approach could have risks, and that the regulations recommended by the Expert Commission SWG, mandating industrial connection, 'district heating-ready' design and plant siting may be necessary in future, particularly as heat networks mature.

#### **Questions**

#### Existing industrial plant

- Q19. What challenges and opportunities do you see for existing industrial plant to connect and sell waste heat to nearby district heat networks, both now and in the future?
  - Q19b. What barriers have industries experienced in the ability to sell their heat under current market conditions?
- Q20. What are your views on requiring existing industrial plant, with the potential to supply surplus heat, to make data available to public authorities? Please provide any relevant evidence.
- Q21. Under these proposed new arrangements, do you think that an enabling approach, perhaps using voluntary mediation, will be successful? How can we best encourage existing industrial plant to supply waste heat to a district heating network?
  - Q21b. Which public authority should carry out the role of voluntary mediation?
- Q22. Do you agree that in some circumstances (if requested), compulsory mediation is needed?
  - Q22b. Do you agree that if compulsory mediation was not successful, then a more directive approach should be used?
  - Q22c. Which public authority should carry out the role of compulsory mediation or direction?

#### New industrial plant

- Q23. What are your views on requiring new industrial plant to be 'district heating-ready'?
- Q24. What would be the most appropriate way of ensuring that new industrial buildings connect to district heating networks? What role can zoning within LHEES play in this?

#### **B5. TECHNICAL STANDARDS, CONSUMER PROTECTION AND LICENSING**

#### **B5.1** Current position and reasons for intervention

- 77. The proposed scenario is designed to achieve a step change in delivery of district heating, and in so doing could create new powers and responsibilities across a range of organisations. The activities of district heating regulators have, to date, been relatively unregulated. The Association for Decentralised Energy (ADE the largest industry body representing combined heat and power, district heating and demand side energy services in the UK) has recognised actual and potential problems arising from the lack of regulation, and responded along with the Chartered Institution of Building Services Engineers by creating a Code of Practice to raise technical standards. ADE has also worked with wider industry, consumer representative and government to initiate the development of the Heat Trust to protect consumers. The Expert Commission welcomed these developments but noted their voluntary adoption by heat network schemes would limit their impact, and recommended development of mandatory standards underpinned by a new licensing system.
- 78. The Expert Commission also noted that there is a clear case for district heating operators to have similar rights to gas and electricity operators to install infrastructure under roads and railways, across land and through buildings, but that the existence of such powers is currently unclear. It therefore recommended clearly understood enabling powers be established.

#### **B5.2 Scenario**

- 79. The Scottish Government is considering the creation of a licensing system for district heating, covering consumer protection and technical standards. Licences could also be a means of conferring certain rights and opportunities on district heating developers.
- 80. Regulation of consumer protection is a reserved issue, therefore, the ability of the Scottish Government to develop such a licensing scheme may be dependent on the UK Government agreeing to devolve powers with regard to this matter or on the UK Government developing the appropriate consumer protection aspects of any licensing regime.
- 81. The Scottish Government will consider drawing on the work of the Heat Trust in mirroring consumer protections available to gas and electricity customers and on any requirements the Scottish Housing Regulator places on heat supply to social housing tenants.
- 82. Technical standards could be based on the Heat Networks Code of Practice developed by the Association of Decentralised Energy (ADE) and CIBSE<sup>19</sup>. The ADE is currently developing a compliance scheme, to be launched in the Autumn. However, technical standards are likely to be more specific than the Code of Practice, establishing common network parameters for district heating in Scotland to ensure interoperability of different networks, as recommended by the Expert Commission.

<sup>19</sup> CP1; Heat Networks Code of Practice for the UK (CIBSE) <a href="http://www.cibse.org/Knowledge/knowledge-items/detail?id=a0q200000090MYHAA2">http://www.cibse.org/Knowledge/knowledge-items/detail?id=a0q200000090MYHAA2</a>

- 83. Licence conditions could simplify people's interaction with district heating. Users would be reassured by the regulatory oversight and so more inclined to connect. Developers would have clear standards to work with that won't vary from place to place. Investors would become familiar with district heating more quickly as different systems would be more directly comparable, and will have greater confidence in new propositions.
- 84. Such a licensing system could be used to confer enabling powers on licence holders. Holding a licence could also be a condition of holding a concession and of being eligible to apply to public authorities for specific buildings to be required to connect to a network.
- 85. The licence could also be a means of democratic oversight of district heating as natural monopolies. Heat networks present specific monopoly issues distinct from electricity and gas. Their scale means competition among multiple suppliers operating across a single network has not often been achieved in other countries and is unlikely to be viable for the foreseeable future in Scotland. The prices operators charge, the financial returns they make and other licensing details, would require further investigation and would be subject to further policy development and consultation.
- 86. A licensing system could be more effective than general standards as it could establish a robust enforcement mechanism. A significant breach of the terms of a licence could result in the licence holder being deemed unfit to operate district heating in Scotland. An organisation whose licence was revoked could lose its concessions, which would transfer to a Scottish Government-owned Supplier of Last Resort which would manage the concessions until they could be tendered to other organisations.

#### **Questions**

- Q25. Do you agree that as district heating becomes more widespread it will need to become a licensed activity? Please explain your answer.
- Q26. What technical standards and consumer protection measures should be part of standard district heating licence conditions? How should these relate to existing schemes?
- Q27. What are your views on using a licensing system to confer enabling powers on operators, and on what enabling powers are required?
- Q28. What principles, objectives and other considerations should guide the development of a Scottish district heating licence?
- Q29. What drawbacks or challenges might a licensing system create? How could these be minimised?
- Q30. Do you have views on who should issue District Heating Licenses and ensure that technical standards are being met?
- Q31. Would the benefits of the concession area outweigh the costs of the licensing arrangements?

## B6. ENABLING ACTIVITY AND ADDITIONAL AREAS FOR CONSIDERATION TO SUPPORT OUR REGULATORY APPROACH

#### Consumer choice and wider engagement

87. The changes identified in the draft Climate Change Plan and Energy Strategy present a significant shift in the energy system to meet overall demand reduction and decarbonisation objectives. Introduction of any regulation of district heating could have implications for heat users that have become accustomed to a certain level of choice in the liberalised energy market.

#### Question

Q32. What are your views on the best approach to ensuring that potential customers understand the differences as potential customers of a heat network, and who do you think is best placed to convey these messages?

#### Non-regulatory support

- 88. The Scottish Government recognises that the proposals outlined within this consultation document will introduce an additional burden on local authorities, and we are seeking views to better assess the size and impact of this potential burden. Providing appropriate support and resource, building on the skills and expertise that local authorities already have, and the support and extensive guidance that is available from the Heat Network Partnership<sup>20</sup> will prove vital in meeting our policy aims.
- 89. The range of skills and experience currently available within our local authorities (for example in housing, energy, planning, procurement, economic development and geographic information systems) should not be underestimated. In some of these areas there are already significant levels of delivery on energy efficiency and or heat decarbonisation being undertaken. And many of the skills required to develop and implement the proposed LHEES and the associated powers and action identified in Section B likely already exist to some extent in different parts of many local authorities. There will therefore be a need to:
  - build existing capacity to ensure continuity of local services whilst continuing to meet national objectives;
  - introduce new skills where necessary; and
  - coordinate across different local authority services.

The distribution of skills and resources, at both local and national (or regional) levels, must also be given careful consideration to ensure that efficiency and outcomes are maximised.

90. The existing skills situated in local authority housing, energy, planning, economic development and geographic information systems areas should not be underestimated. In some of these areas there are already significant levels of delivery on energy efficiency and or heat decarbonisation being undertaken. Any requirement to produce a LHEES may also reduce the burden associated with development of other strategies such as the Local Housing Strategy and Local Development Plan.

<sup>20</sup> See paragraph 15 and the www.districtheatingscotland.com website for further details.

- 91. Additionally we are keen to ensure that local authorities that have already been active in this area are able to continue to use any relevant work they have developed to date for strategies, while ensuring that the process is robust enough that any powers that local authorities use can be enforced. This is likely to result in the need for public consultation, strategic environmental assessment and potentially use of national modelling or statistics to ensure robustness against challenge.
- 92. The Scottish Government already provides a range of financial and strategic development support to local authorities through schemes such as the District Heating Loan Fund, the Low Carbon Infrastructure Transition Programme and the District Heating Strategy Support Programme. The Scottish Government has also provided support to the Cities Alliance to explore the skills of planners in implementing planning policy relating to district heating. We remain fully committed to ongoing support which may need to adapt to take account of proposed additional duties prior to their introduction and again at their introduction.

#### **Questions**

- Q33. Please provide any evidence you have regarding:
  - a) analytical skills, resources and techniques that could support development of LHEES, particularly where these are not currently used by local government
  - b) the anticipated cost of preparing LHEES
  - the additional skills and resources are needed to meet the requirements of the ponential local authority role of district heating regulation.
- Q34. What support and resources will local authorities need to produce LHEES and implement the potential local authority role of district heating regulation, and which organisations do you think these are best placed to provide these? Please explain your views.
- Q35. What are your views on how any support should change over the different phases of development, introduction and implementation of any regulation?

#### Wider heat market regulation and decarbonisation of the gas network

- 93. Regulation of heat is within the devolved competence of the Scottish Parliament, however, regulation of the gas network is a matter reserved to UK Parliament. As gas provides the heat to 78% of the homes and the majority of heat use in business and industry in Scotland, decisions on the future of this major infrastructure has a significant impact on low carbon heat delivery in Scotland. UK Ministers have set out<sup>21</sup> that more evidence is needed on the options for the long-term direction of heat decarbonisation. District heating, electrification of heat with heat pumps and decarbonisation of the gas network are all currently possibilities. However, there are a number of unanswered questions which mean the most appropriate long-term solutions or mix of solutions is not yet clear. The UK Government has set out an ambition to be able to agree in the next few years on the right long-term direction for heat policy. As a first step, the UK Government aims to thoroughly re-assess the evidence, and support practical projects to test different approaches and want to work with stakeholders to do so.
- 94. This activity by the UK Government and the fact that a decision has not yet been taken on the long-term direction for infrastructure such as the gas network does not mean we should slow down our work to deliver a low carbon heat system. However, it suggests we should focus our efforts in key areas:
  - with a priority on reducing heat demand as set out in the heat hierarchy of the Heat Policy Statement; and
  - low carbon heat supply via low regrets options as set out by the Committee on Climate Change<sup>22</sup> such as:
    - district heating projects in areas where heat density is high and district heating is financially viable delivering affordable, low carbon heat efficiently (as set out by the Committee on Climate Change); and
    - renewable heat technologies to individual properties particularly in areas off the gas network.
- 95. The scale of the change identified in the draft Climate Change Plan for buildings is significant as is the work that will be required by the Scottish Government, local government and other stakeholders to deliver energy efficiency and heat decarbonisation measures in the short and medium term through a range of activities. As a result the Working Group suggested that regulation relating to heat should at this stage be that which focuses on our transition to a largely decarbonised energy system. And not extend to regulation of other heating fuels such as heating oil or LPG.

#### Question

- Q36. What are you views on the wider regulation of the heat market to ensure decarbonisation?
- Q37. What are your views on when decisions should be take on the future of the gas network?

<sup>21</sup> For details see Baroness Neville-Rolfe's keynote speech from the Policy Exchange event 'The Heat Summit: How Can We Decarbonise Heating?' 14 December 2016. Available at: <a href="https://www.gov.uk/government/speeches/baroness-neville-rolfes-speech-at-the-policy-exchanges-heat-summit">https://www.gov.uk/government/speeches/baroness-neville-rolfes-speech-at-the-policy-exchanges-heat-summit</a>

<sup>22</sup> Committee on Climate Change (October 2016) Next steps for UK heat policy, eg p 8-9 <a href="https://www.theccc.org.uk/wp-content/uploads/2016/10/Next-steps-for-UK-heat-policy-Committee-on-Climate-Change-October-2016.pdf">https://www.theccc.org.uk/wp-content/uploads/2016/10/Next-steps-for-UK-heat-policy-Committee-on-Climate-Change-October-2016.pdf</a>

96. The cost of maintenance and development of the asset base for the gas network is socialised across the entire GB market. In the long term, regulating the asset base for heat and socialising costs across infrastructure may present benefits for investors, developers and heat customers. The approach taken to wider regulation of the heat market in the future will depend on the decisions taken by the UK Government.

#### **Questions**

- Q38. Please provide any evidence you have to inform the Scottish Government in informing its thinking in this area.
- Q39. Please set out any further views on issues covered in this consultation that you have not already expressed, providing evidence to support your views.

## ANNEX A – RECOMMENDATIONS OF THE SPECIAL WORKING GROUP ON REGULATION OF THE EXPERT COMMISSION ON DISTRICT HEATING

The Scottish Government's Heat Generation Policy Statement in 2014, prompted a majority of responses in favour of further regulatory measures for heat supply, including district heating. Accordingly, in 2014 the Scottish Government asked a number of members of the Expert Commission on District Heating, together with district heating practitioners and other key stakeholders from the private and public sectors, to serve on a special working group to look at the current regulatory environment in Scotland as it affects district heating and to make recommendations as to what changes, if any, would be helpful in supporting district heating development.

The reasoning behind the following recommendations and further detail can be found in the report<sup>23</sup>.

- 1. Local authorities to produce strategic plans for district heating and use their planning powers to enforce implementation.
- Local authority powers should include the power to require buildings with significant heat loads to connect to a district heating network where this can offer heating at competitive cost.
- 3. A single set of national technical standards for district heating systems, to be developed by the Scottish Government working with the district heating industry and other stakeholders.
- 4. The establishment of clearly understood enabling powers for district heating infrastructure.
- 5. The Scottish Government to provide binding guidance on key priorities for local authorities' strategic plans for district heating.
- 6. The Scottish Government to develop a socio-economic methodology which can establish the overall socio-economic benefit of a district heating project and then set a threshold for benefit required under this methodology for a project to receive planning permission.
- 7. When a network is repowered or new heat sources are added there should be an ongoing obligation to conform to the local authority strategic plan for district heating to ensure these changes remain in line with national carbon policies and budgets.
- 8. A duty to be imposed on operators of all plants, including existing ones, which generate significant amounts of usable waste heat to require them to supply data on that heat for incorporation in the Scottish heat map and to supply that waste heat to district heating network operators at an economic price.
- 9. All new plants producing significant quantities of waste heat to be required to build in a take-off point for supplying that heat to a district heating network, i.e. that such plants should be 'district heating-ready'.
- 10. New energy generation or industrial plants with a significant waste heat potential should, so far as possible, be located within a useful distance of potential users of that heat.
- 11. Implementation of an appropriate statutory licensing regime for district heating operators in Scotland.

<sup>23</sup> The Scottish Government (2016), 'Report of the Special Working Group on Regulation' <a href="http://www.gov.scot/Resource/0049/00497892.pdf">http://www.gov.scot/Resource/0049/00497892.pdf</a>

## Responding to this consultation

We are inviting responses to this consultation by 18 April 2017.

Please respond by using the Scottish Government's consultation platform, Citizen Space. You can view and respond to this consultation online at: https://consult.scotland.gov.uk/energy-and-climate-change-directorate/local-heat-and-energy-efficiency/. You can save and return to your responses while the consultation is still open. Please ensure that consultation responses are submitted before the closing date of 18 April 2017.

If you are unable to respond online, please complete the Respondent Information Form (see 'Handling your response' below) to:

#### LHEES-DHRegs@gov.scot

Or

Heat, Energy Efficiency and Consumer Unit 4th Floor Atlantic Quay 150 Broomielaw, Glasgow G2 8LU

#### Handling your response

If you respond using Citizen Space (http://consult.scotland.gov.uk/), you will be directed to the Respondent Information Form. Please indicate how you wish your response to be handled and, in particular, whether you are happy for your response to published.

If you are unable to respond via Citizen Space, please complete and return the Respondent Information Form included in this document. If you ask for your response not to be published, we will regard it as confidential, and we will treat it accordingly.

All respondents should be aware that the Scottish Government is subject to the provisions of the Freedom of Information (Scotland) Act 2002 and would therefore have to consider any request made to it under the Act for information relating to responses made to this consultation exercise.

#### Next steps in the process

Where respondents have given permission for their response to be made public, and after we have checked that they contain no potentially defamatory material, responses will be made available to the public at <a href="http://consult.scotland.gov.uk">http://consult.scotland.gov.uk</a>. If you use Citizen Space to respond, you will receive a copy of your response via email.

Following the closing date, all responses will be analysed and considered along with any other available evidence to help us. Responses will be published where we have been given permission to do so.

#### Comments and complaints

If you have any comments about how this consultation exercise has been conducted, please send them to:

LHEES-DHRegs@gov.scot

Or

Heat, Energy Efficiency and Consumer Unit 4th Floor Atlantic Quay 150 Broomielaw, Glasgow G2 8LU

#### **Scottish Government consultation process**

Consultation is an essential part of the policy-making process. It gives us the opportunity to consider your opinion and expertise on a proposed area of work.

You can find all our consultations online: http://consult.scotland.gov.uk. Each consultation details the issues under consideration, as well as a way for you to give us your views, either online, by email or by post.

Consultations may involve seeking views in a number of different ways, such as public meetings, focus groups, or other online methods such as Dialogue (https://www.ideas.gov.scot).

Responses will be analysed and used as part of the decision-making process, along with a range of other available information and evidence. We will publish a report of this analysis for every consultation. Depending on the nature of the consultation exercise the responses received may:

- indicate the need for policy development or review;
- inform the development of a particular policy;
- help decisions to be made between alternative policy proposals; and/or
- be used to finalise legislation before it is implemented.

While details of particular circumstances described in a response to a consultation exercise may usefully inform the policy process, consultation exercises cannot address individual concerns and comments, which should be directed to the relevant public body.

Respondent Information Form 42



#### RESPONDENT INFORMATION FORM

Please Note this form must be completed and returned with your response.							
Are you	u responding as an individual or a	n orga	inisation?				
	Individual						
	Organisation						
Full name or organisation's name							
Phone number							
Address							
Postco	ode						
Email							
		I					
	cottish Government would like you sion to publish your consultation	ır	Information for organisations:				
response. Please indicate your publishing		ıg	The option 'Publish response only (without name) is available for individual respondents only If this				
prefere	ence:		option is selected, the organisation name will still				
	Publish response with name		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				
	Publish response only (without na	ame)					
	Do not publish response		example, the analysis report.				
may be	e addressing the issues you discu	ss. The	er Scottish Government policy teams who ey may wish to contact you again in the future, ou content for Scottish Government to contact se?				
	Yes						
	No						



© Crown copyright 2017

## **OGL**

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit **nationalarchives.gov.uk/doc/open-government-licence/version/3** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: **psi@nationalarchives.gsi.gov.uk**.

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at www.gov.scot

Any enquiries regarding this publication should be sent to us at The Scottish Government St Andrew's House Edinburgh EH1 3DG

ISBN: 978-1-78652-747-9

Published by The Scottish Government, January 2017

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA PPDAS86587 (01/17)